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AUTHOR Ayers, Jerry B.
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ABSTRACT

This is the second report on a continuing study evaluating graduates of teacher preparation programs, This report presents the findings of the second year of the application of the Tennessee Technological University Teacher Evaluation Model. The report begins with an introduction and information on the procedures used. Chapters two, three, and four contain a presentation and analyses of data for the 1971-73 graduates, the 1974 Bachelor of Science graduates, and the 1974 Master of Arts graduates. The summary, conclusions, and recommendations are presented in chapter five, while plans for the continuation of the study are discussed in chapter six. Results of the application of the model to subjects who were participating in the study for the second year indicated few differences between the two years. Data gathered from the 1974 graduates were similar to that information gathered during the first year of the project. In general, the results of the application of the model indicated the graduates had many of the characteristics of good teachers as reported in the literature. Tables are included throughout the report. Appended is a list of reports and studies related to the teacher preparation programs at Tennessee Technological University. (RC)

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STUDY OF THE TEACHER PREPARATION PROGRAMS OF

TENNESSEE TECHNOLOGICAL UNIVERSITY

REPORT 75-4

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL - YEAR II

JUNE, 1975

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SP 010 102

Tennessee Technological University
College of Education
Cookeville, Tennessee

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Report Prepared By:

Jerry D. Ayers
Assistant to the Dean
College of Education

June, 1975

Tennessee Technological University

Cookeville, Tennessee 38501

ABSTRACT

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL-YEAR II

In 1973-74 Tennessee Technological University developed and implemented a model for systematic data gathering and for making evaluations of the programs in teacher education. During 1974-75 this work was expanded to include additional subjects and other techniques. Initially 36 individuals who had participated in the first year of the study were visited by especially trained research assistants to gather data from classroom observations and students and principals ratings of the subjects. In turn, a sample of 33 individuals who received the B.S. and 16 individuals who received the M.A. from the University in 1974 were added to the study. These individuals completed questionnaires about their experiences at the University and a personality measure. Information was gathered from University records and trained research assistants visited in each subject's classroom to gather data using observational techniques. Principals and students of the subjects rated the individuals using three instruments. All data were analyzed using appropriate statistical techniques. Results of the application of the model to subjects who were participating in the study for the second year indicated few differences between the two years. Data gathered from the 1974 graduates were similar to that information gathered during the first year of the project. In general the results of the application of the model indicated the graduates had many of the characteristics of good teachers as reported in the literature. There are implications for changes in the teacher education programs of the University. Plans have been made for continuation of the study on a longitudinal basis.

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PREFACE

During the past 15 years increasing attention has been given to the evaluation of the graduates of the teacher preparation programs of Tennessee Technological University. Followup studies of all graduates have been conducted on a regular bases and special studies have been performed to provide input for the overall operation of the programs of the University. In order to improve the evaluation component of the teacher preparation program of the University, an intensive study was initiated in the Fall of 1973 of the graduates of the teacher preparation program. This study was conducted utilizing a modified model that was previously developed for evaluating graduates of teacher preparation programs. This study was summarized in Report 74-4 prepared by the Office of the Administrative Assistant for Special Services in the College of Education.

The purpose of this present report is to present the findings of the second year of the application of the Tennessee Technological University Teacher Evaluation Model. In turn, this report will be utilized in providing inputs into the total system of teacher preparation at the University. This report is by no means complete; however, it will serve to inform the reader of the basic procedures used and the preliminary findings of the second year of the study. Much data has been collected and many hours of computer time have been employed in making various analyses. In order to conserve paper only essential information has been included in this report. If the reader desires additional information or analyses of data in other ways, it is suggested that he contact the author of this report. Also it should be pointed out that the Office of the Assistant to the Dean has been involved in a number of separate studies during the past five years that are related to teacher evaluation. A complete listing of these reports is contained in the Appendix of this document, and copies or abstracts of the reports are available from the Assistant to the Dean of the College of Education.

The author of this report is indebted to the efforts of seven individuals that have been involved extensively in working with the project. These individuals include: Mr. Don M. Perry, Graduate Assistant; Mrs. Barbara Riddle, Graduate Assistant; Mrs. Mary Jane Cassetty, Graduate Assistant; Mrs. Catherine Cooper, Secretary; Mrs. Myra Richardson, Secretary; Dr. John Thomas, Associate Professor of Educational Psychology and Counselor Education; and Mr. James T. Browning, User Liaison/Statistican, D. W. Mattson Computer Center. In addition, thanks are extended to all principals, teachers, superintendents, and other school personnel that provided technical assistance, data, and allowed the project staff to work with them in various ways.

Jerry B. Ayers
Assistant to the Dean
College of Education
May, 1975

CHAPTER I

INTRODUCTION AND PROCEDURES

Beginning in 1970, with the creation of the Office of the Administrative Assistant for Special Services and continued by the Office of the Assistant to the Dean, a series of separate studies was begun related to the evaluation of students enrolled in and graduates of the teacher preparation programs of Tennessee Technological University. The research has been systematic and designed to answer such questions as course effectiveness, the proper sequence of courses, factors related to achievement, success of the graduates after entering the teaching profession, better methods of instruction, and the degree of achievement of the stated competencies of the teacher preparation program.

The work of Sandefur (1) and Adams (2) led to the development of a model (Tennessee Technological University Teacher Evaluation Model) for the evaluation of graduates of the teacher preparation programs of the University. During 1973-74 the Evaluation Model was implemented with funds available from the budget of the College of Education. The results of the use of the model were summarized in Report 74-4 prepared by the Office of the Administrative Assistant for Special Services (3).

The second year of the application of the Evaluation Model was initiated in the Fall of 1974. The remainder of this chapter describes the purposes of the second year of the operation of the Model, limitations of and the procedures used in conducting the major phases of the study. Chapters II through IV contain presentations and interpretations of the data gathered in the study. Chapter V consists of a summary and the conclusions and recommendations based on the findings of the study and Chapter VI outlines tentative plans for continuation of the study during the third year of operation. The Appendix contains a summary listing of all evaluative studies that have been conducted by the Administrative Assistant for Special Services or the Office of the Assistant to the Dean for the past five years. Also included are references to other selected studies conducted by other units of the College of Education.

Purposes

The purposes of the study that is reported in this document include the following:

1. To provide information for faculty and administrators concerned with teacher preparation programs at Tennessee Technological University in making decisions pertinent to curriculum evaluation and development.

2. To aid in the process of making long range plans for improving the total educational program of the University with particular emphasis on the teacher preparation program.

3. To continue the development and refinement of the Tennessee Technological University Teacher Evaluation Model.

Specific objectives to be accomplished as a part of this study were as follows:

1. To continue studying those subjects who were a part of the first year of the application of the model.

2. To provide a descriptive profile of a sample of 1974 graduates of the teacher preparation programs of Tennessee Technological University.

3. To determine relationships among selected variables that were measured as a part of the total study.

4. To provide comparisons between the graduates of the teacher preparation programs of Tennessee Technological University with those who might be considered as effective teachers as defined in the original literature of teacher education.

5. To provide effective dissemination of relevant research data to the faculty and administration of the University associated with the teacher preparation programs.

6. To provide information and suggestions for curriculum evaluation and development based on empirical research data.

7. To continue to evaluate the procedures employed in the study and to make long range plans for implementation of the full evaluation model on a three year cycle.

Limitations

The general limitations for this study are as follows and are primarily concerned with sampling techniques:

1. Subjects for the study were individuals who were 1974 graduates of a bachelor's or master's level program at Tennessee Technological University designed to prepare them as teachers or they were individuals who participated in the 1973-74 phase of the study. (Separate studies have been made of the graduates of the school service personnel programs).

2. Subjects were teaching in the State of Tennessee within a 100 mile radius of Cookeville, Tennessee. (Approximately 70 percent of all graduates of the teacher preparation program of the University, that are teaching, reside within the specified geographical limits of the study).

3. The subjects agreed voluntarily to participate in the study.

4. The principal and the superintendent under whom each subject worked agreed that the graduate could participate in the study.

These limitations were imposed in order to make the study more feasible regarding the followup of the subjects. Voluntary participation was deemed necessary due to the extensive collection of data and due to the cooperation required from the subjects for classroom observations and subsequent data

collection. Also the limitation of a 100 mile radius of Cookeville, Tennessee was necessary because of the limited travel funds available and the time available for the graduate assistants to visit in the classrooms of the participating subjects.

Procedures

The purpose of this section is to provide the reader with a brief description of the procedures employed in collecting the data utilized in this study. This section is concerned specifically with selection of subjects, implementation of the study, training of staff, and methods of data collection and analyses. Figure 1 shows a PERT chart of the major activities of the project from August 1, 1974 through May 31, 1975. In order to conserve space, the reader is referred to Chapter 2 of Report 74-4(4) for a more complete description of such topics as instrumentation and training of observers.

Selection of Subjects

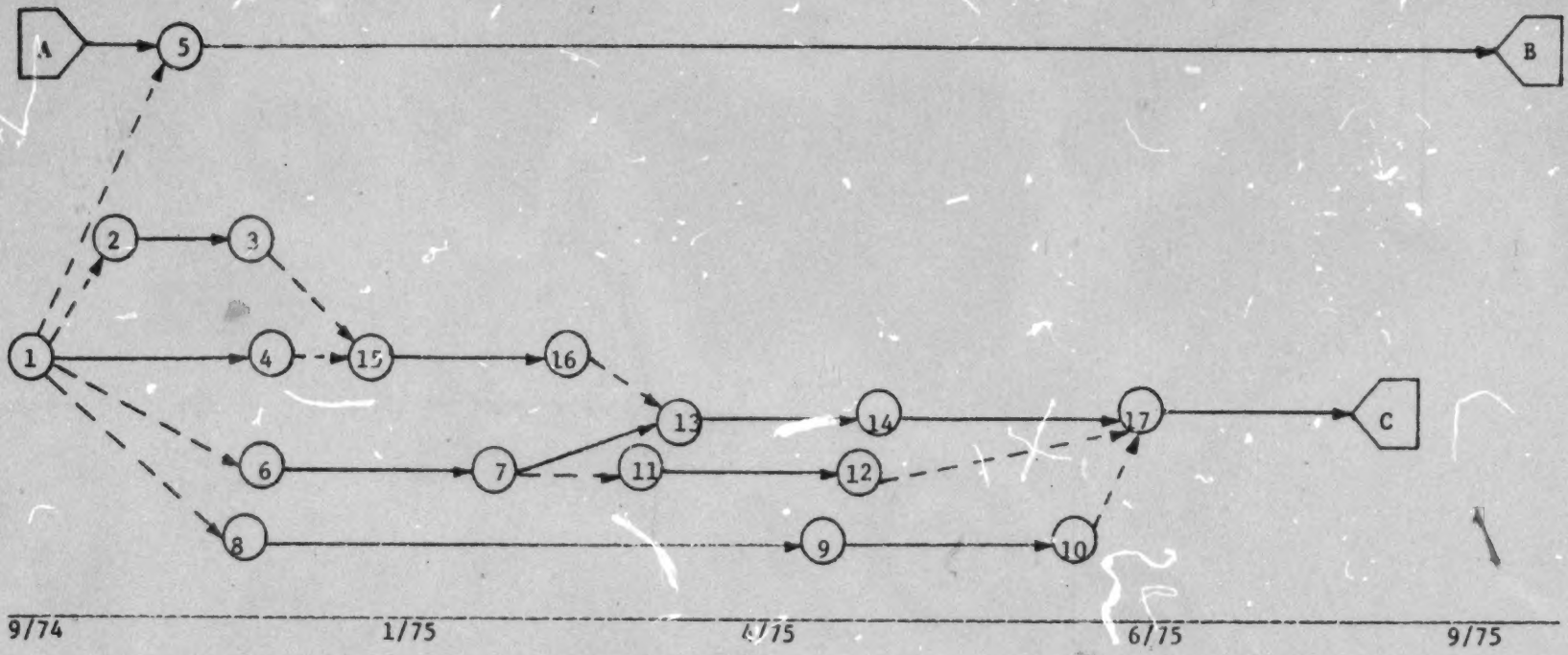
Two groups of subjects participated in the 1974-75 phase of the project. The first group consisted of those individuals that had participated in the 1973-74 phase of the study, while the second group consisted of a sample of those individuals that received in 1974 either the B.S. or M.A.

The number of individuals who participated in the 1973-74 phase of the study consisted of 59 graduates of the University's programs from 1970 through 1973 (four individuals had received the M.A. and the remainder the B.S.). By design, the ten 1970 graduates were dropped from the study. Due to attrition, an additional 13 individuals dropped out of the 1974-75 study, leaving a net of 36 subjects. Of the 13 individuals who dropped out of the study, 9 individuals either moved out of the geographical limits of the study or left classroom teaching for a variety of reasons. Only four individuals who were still teaching declined to continue in the project.

As a part of the routine followup activities of the Office of the Assistant to the Dean, all 1974 graduates of the teacher preparation programs were contacted in the Fall of 1974 (403 B.S. graduates and 188 M.A. graduates). As a result of this initial survey(5), all graduates who were teaching within the defined geographical limits of the project, were contacted by mail and/or telephone and asked to participate in this study. A total of 33 B.S. and 16 M.A. level individuals volunteered to participate. Figure 2 shows a map of selected portions of Tennessee. The numerals within each county indicate the number of individuals who were included in the 1974-75 phase of the study who were also in the 1973-74 study. Figure 3 shows similar information for the 1974 graduates. Table 1 shows a distribution of the number of individuals by year of graduation, their primary teaching assignment and whether they had completed a bachelor's or a master's degree from the University.

Instrumentation

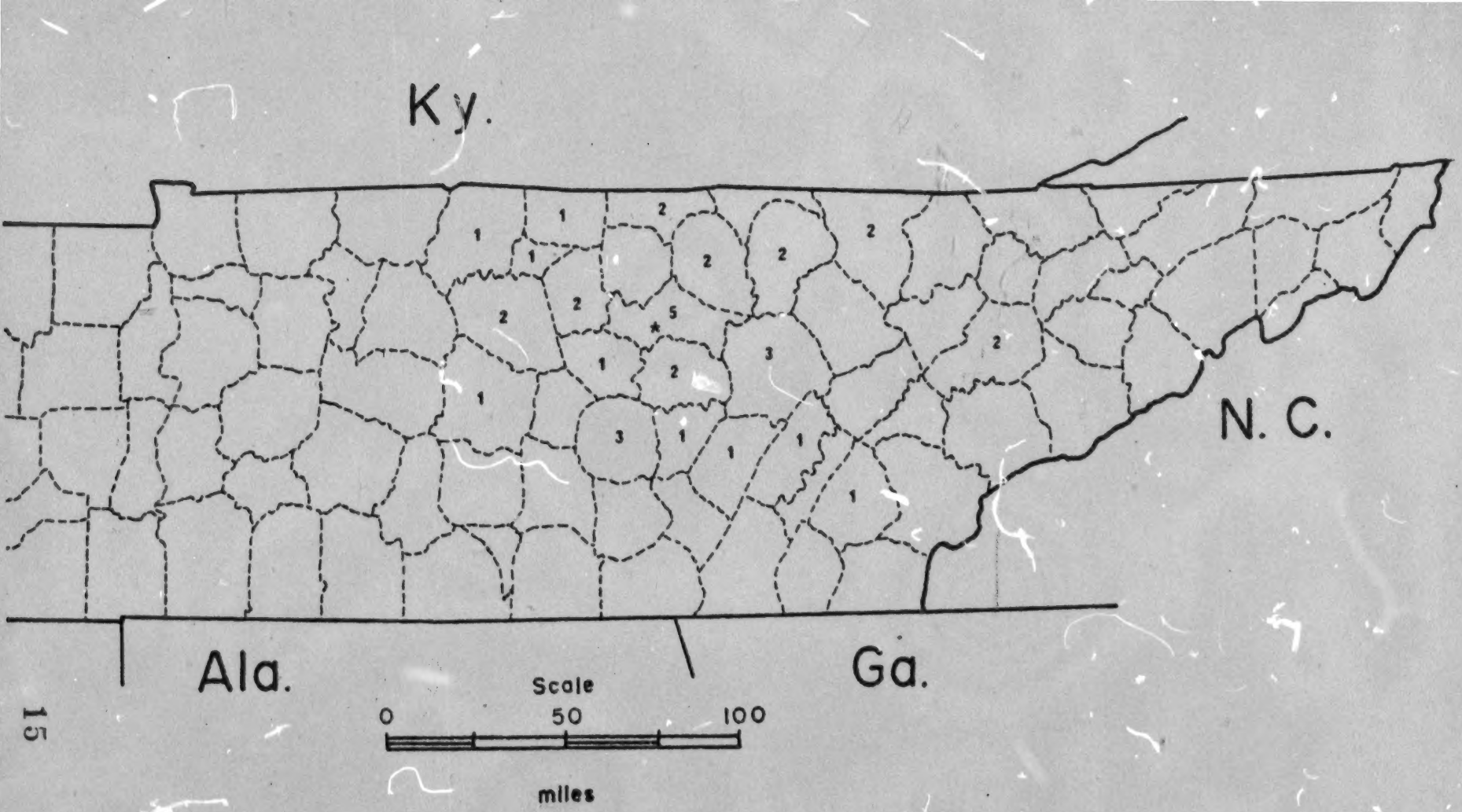
Instrumentation for the 1974-75 study was identical with that used during 1973-74 with one exception. The Student Evaluation of Teaching (SET-I), used in 1973-74 is applicable for use with children above the third grade. During



Summary of Activities

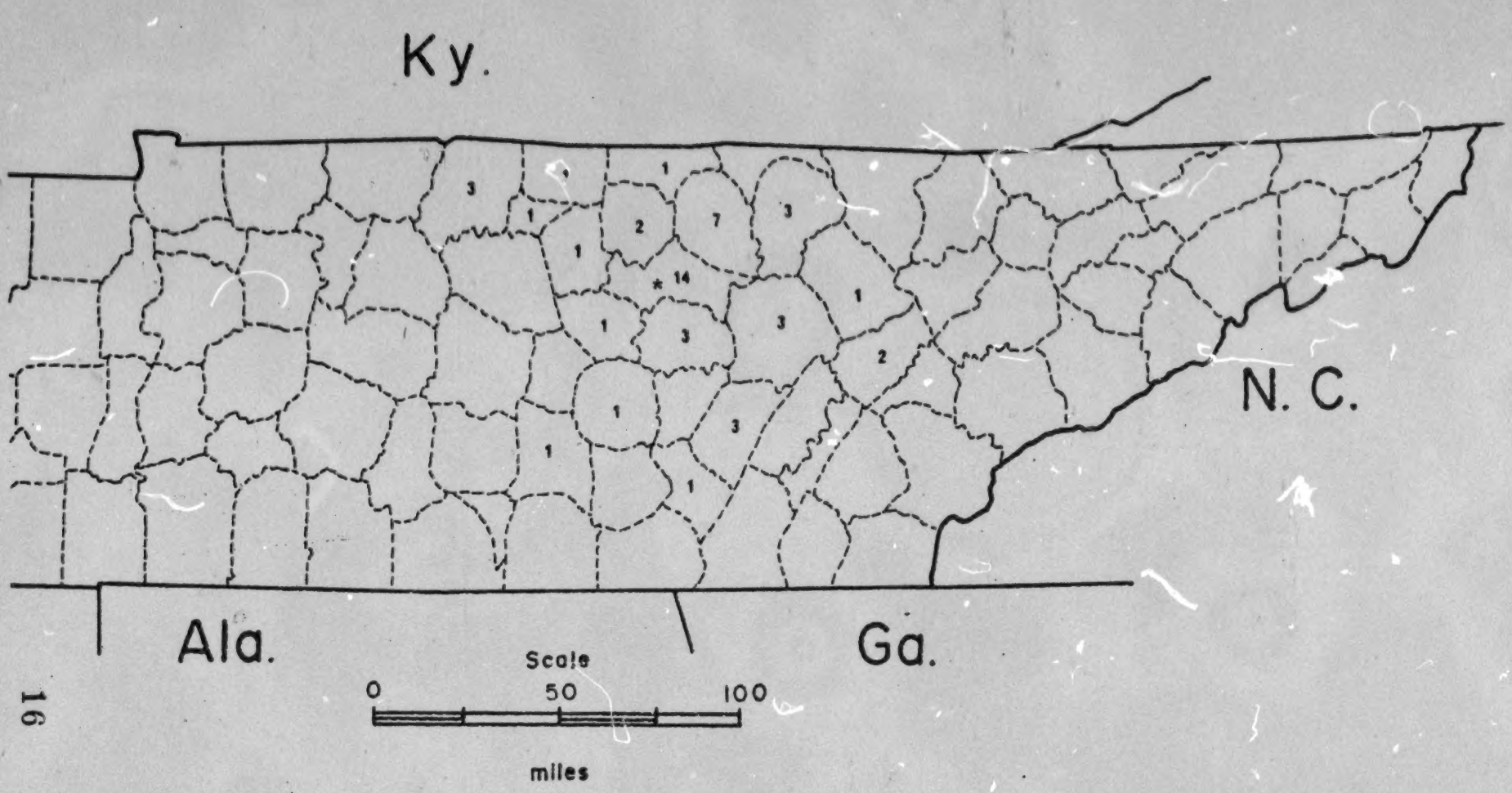
1-4	Finalize Plans for Visiting Subjects in 1973-74 Study
2-3	Training of Observers
5--	Continuing Review of Literature and and Contacts With Other Projects
6-7	Survey All 1974 Graduates
8-9	Conduct Other Related Studies
9-10	Prepare Reports of Related Studies
11-12	Survey Principals of All 1974 Graduates
7-13	Select Sample of 1974 Graduates for Intensvie Study as Part of Followup
13-14	Make School Visits on 1974 Graduates
15-16	Make School Visits on 1973-74 Subjects
14-17	Complete Reports and Submit
17--	Begin Making Plans for 1975-76 Phase of Study

Figure 1. PERT Chart of Major Activities for 1974-75.



* Cookeville, Tennessee--Location of Tennessee Technological University

Figure 2. Distribution of Subjects Who Participated in 1973-74 Study.



* Cookeville, Tennessee--Location of Tennessee Technological University

Figure 3. Distribution of 1974 Graduates Who Participated in Study.

TABLE 1

Sample for Intensive Followup 1974-75*

Year	K	1-3		4-7		8-12	Sp.Ed.	Total	Eng.	Sci.	Hist.	Bus.Ed.	Math.	P.E.	Other
1971	0/1	0/1		0/2		0/4	0/0	0/8	2	1	0	0	1	0	2
1972	0/4	0/1		0/5	0/1	0/2	0/1	0/14	0	0	0	1	0	0	2
1973	1/0	0/3	1/0	1/2	0/1	1/4	0/0	4/10	1	1	0	0	1	4	2
1974	3/9	0/7	0/4	1/6	5/5	5/0	2/2	16/33	2	6	2	0	2	3	6
Total	4/14	0/12	1/4	2/15	5/7	6/10	2/3	20/65	5	8	2	1	4	7	12

*Number MA/Number BA

the current study, the Student Evaluation of Teacher Instrument, II (SET-II) developed by Haak, Kleiber, and Peck (6) was employed with children from kindergarten through grade three. The instrument allows for the collection of information about teachers from five broad areas including: Rapport; Interactional Competence; Stimulating, Interaction Style (Combination of Rapport and Interactional Competence); Unreasonable Negativity; and Fosterance of Self-Esteem. These factors parallel those of the SET-I and provide for an additional dimension for the analysis of the teaching behavior of teachers in grades K through 3.

Training of Observers

The procedures for the training of observers are outlined in Report 74-4. Based on two years of work it is felt that the methods are appropriate and effective.

Collection of Data

The methods for the collection of data are detailed in Report 74-4. It should be pointed out that only one-half-day visit was made to each subject. Based on experiences of the 1973-74 study, it was felt that this was sufficient time to gather the needed data. In general those individuals who had participated in the 1973-74 study were visited in October and November of 1974, while the 1974 graduates were visited from mid-January through March of 1975.

Analysis of Data

The methods and procedures are detailed in Report 74-4. Additional comparisons were made of the data collected during the first and second year of the study.

Summary

In summary this chapter has presented a brief overview of the total operation of the 1974-75 phase of the study. Included in this chapter has been a summary statement of the major purposes of the project, limitations of the study and the major procedures employed in conducting the study. It is felt that the information available from this report and the companion 1974 Report 74-4 will be useful to those individuals attempting to replicate this study. It should be pointed out that additional information and specifics related to the methodology employed in this study are available from the Office of the Assistant to the Dean, College of Education.

References

1. Sandefur, J. T. An Illustrated Model for the Evaluation of Teacher Education Graduates, Washington: American Association of Colleges for Teacher Education, 1970.

2. Adams, Ronald D. Western Kentucky University's Teacher Preparation Evaluation Model, Phase I, Cycle I, Annual Report, Bowling Green, Ky: Office of Educational Research, Western Kentucky University, 1972.

3. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model, Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo), 92 pp.

4. Ibid.

5. Ayers, Jerry B. Report 75-1. A Report of Three Surveys of the 1974 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: Tennessee Technological University, College of Education, 1975. (mimeo), 18 pp.

6. Haak, Ruth A.; Kleiber, Douglas A. and Peck, Robert F. Student Evaluation of Teacher Instrument, II. Manual, Austin, Tex: The Research and Development Center for Teacher Education, University of Texas, 1972.

CHAPTER II

PRESENTATION AND ANALYSES OF DATA 1971-73 GRADUATES

Chapter II contains a presentation and analyses of data which are pertinent to those individuals that are participating in the second year of the longitudinal study. Means, standard deviations, correlations and comparisons are presented in tabular form for selected variables. Explanatory information is included to facilitate the reader's understanding and usage of the report. The reader is referred to Report 74-4 (1) for additional information about the subjects.

Data gathered during 1974-75 parallels the information gathered during the first year of the study. Instrumentation and techniques were the same with the exception of the introduction of the Student Evaluation of Teaching Instrument, II (SET-II) with children in kindergarten through the third grade. In order to conserve space and simplify the report, information about the subjects is presented from four broad areas including: interrelationships between the various variables and principals, students, and independent observers evaluations.

Interrelationships Between Selected Variables

This section contains a summary of the interrelationships of 37 selected variables. The correlation matrix shown in Table 2 contains the means, standard deviations and correlations for 37 selected variables from three broad areas, i.e. principals, students and independent observers. No attempt was made to show a complete matrix with all variables. Only variables significant at or beyond the .05 level will be discussed in this chapter.

The intercorrelations of the four dimensions of the principals evaluation form (Subject Matter Competence, Relations With Students, Appropriateness of Assignments, and Overall Effectiveness), were similar to those reported in the 1973-74 study. Intercorrelations of the four principal dimensions with other variables in the study were again, similar to those reported in the 1973-74 study. There was considerable agreement between the ratings by the principals and the ratings given by the independent observers on the Classroom Observation Record(COR).

In general, there was strong agreement between the principals and independent observers that the subjects possessed competence in their subject matter, knowledge that they had good relations with their students and that there assignments were appropriate. Also, it was noted that their was a high correlation between principal and student rating of the teachers' knowledge of subject matter.

Intercorrelations of the Student Evaluation of Teaching (SET-I) were similar to those reported in the 1973-74 study. Other correlations with the data gathered through Interaction Analysis and use of the COR were also similar to those reported during 1973-74. In general there was agreement between the students and observers that the subjects were stimulating, original, responsible and adaptable.

TABLE 2

CORRELATION MATRIX OF SELECTED VARIABLE

	$\bar{X}$	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PRINCIPAL EVALUATION																		
1. I	4.11	0.74	1000	576	698	666	-202	35	075	-154	-178	269	114	080	-156	-290	181	251
2. II	4.07	0.94		1000	722	720	-113	344	-138	080	-178	038	275	205	-251	-341	113	306
3. III	3.93	0.66			1000	697	-316	417	-011	-161	-387	311	160	219	-341	-201	-070	350
4. IV	4.07	0.81				1000	-118	392	-085	-007	023	121	158	277	-2[illegible]	-324	-153	218
STUDENT EVALUATION OF TEACHING																		
5. I	293.96	117.62					1000	-224	-180	735	784	-840	289	-024	269	-139	179	-223
6. II	361.56	171.91						1000	-082	-007	-125	160	039	-018	-005	-176	-045	213
7. III	313.36	113.96							1000	-567	-113	618	142	-012	-021	232	-093	131
8. IV	2[illegible].80	108.16								1000	505	-846	139	-060	412	073	097	-155
9. V	243.[illegible]	105.18									1000	-557	411	113	233	-076	005	-229
10. VI	293.61	107.72										1000	-167	003	-198	222	-169	330
INTERVENTION ANALYSIS																		
11. I/b	[illegible].70	0.31											1000	171	-124	-269	341	160
12. I/d	[illegible].55	1.03												1000	016	-153	-554	167
13. ST/TT	0.58	0.44													1000	-010	110	153
14. Sil/Tot	0.34	[illegible].36														1000	-390	-070
15. Lec/Tot	0.43	0.16															1000	-017
CLASSROOM OBSERVATION RECORD																		
16. 1	5.07	1.18																1000
17. 2	5.04	1.07																
18. 3	4.93	1.12																
19. 4	4.89	1.23																
20. 5	5.54	1.04																
21. 6	5.18	1.09																
22. 7	5.46	1.35																
23. 8	5.39	1.20																
24. 9	5.75	0.84																
25. 10	5.18	1.22																
26. 11	5.11	1.10																
27. 12	5.46	0.84																
28. 13	5.36	0.91																
29. 14	5.71	0.85																
30. 15	5.23	0.97																
31. 16	5.46	0.92																
32. 17	5.39	0.99																
33. 18	5.43	1.03																
34. 19	5.27	1.08																
35. 20	5.30	1.07																
36. 21	5.33	[illegible]																
37. 22	5.11	0.97																

*Underlining indicates a correlation significant at or beyond the .05 level.

TABLE 2

ED VARIABLES - Ss IN SECOND YEAR OF STUDY*

11

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
-290	181	251	268	051	179	339	204	375	291	289	425	211	217	258	207	000	-062	114	384	371	433	373	542
-341	113	306	205	-074	141	323	646	555	239	557	495	430	470	127	540	259	261	329	524	419	461	547	605
-201	-070	350	266	-060	257	220	277	495	324	262	396	318	276	117	373	024	050	098	316	276	408	335	570
-324	-153	218	232	-089	155	244	135	089	210	250	327	225	188	112	180	000	000	049	380	319	327	248	375
-139	179	-223	-083	-049	-245	002	-021	-153	-141	-056	-209	-197	074	-202	-003	346	027	-139	-275	262	-176	-113	-197
-276	-045	213	285	177	226	193	099	249	161	297	485	412	344	367	414	064	296	193	423	100	319	287	391
232	-093	171	137	167	199	-116	-087	-133	-045	-163	-087	-141	-250	-130	-028	-438	-177	-134	-038	-031	-113	002	061
073	097	-155	-003	003	-090	010	081	-019	-031	057	-034	-003	168	-128	055	373	122	001	-200	196	-029	-045	-029
-076	005	-129	004	019	-201	041	-253	-199	-138	039	-198	-188	-052	-164	-148	145	-104	-275	-191	145	-149	-228	-278
222	-169	330	266	222	373	005	-002	147	167	074	158	122	-165	127	-609	-471	-129	020	230	-111	152	127	215
-269	341	160	342	257	214	322	319	288	316	411	266	294	289	080	317	399	236	290	227	301	128	232	199
-153	556	367	072	016	234	090	-045	368	274	107	354	190	141	024	208	-050	027	-016	098	259	263	219	240
-010	110	157	219	351	224	002	093	029	013	166	154	125	074	180	058	124	101	090	-120	056	044	-116	-112
1000	-390	-070	-082	-099	044	-140	140	-037	-175	-512	-279	-144	-291	-508	-382	-316	-138	-296	-189	-221	-208	-044	-135
	1000	-017	142	032	-159	340	380	-011	133	425	047	019	317	257	260	496	301	459	234	064	060	134	026
		1000	876	730	826	541	592	722	737	463	684	733	562	387	570	469	511	510	579	726	671	644	692
			1000	774	801	550	502	604	653	502	591	625	559	404	497	456	476	508	521	716	619	593	625
				1000	784	290	375	416	491	333	471	576	313	425	249	291	320	392	347	642	499	437	470
					1000	302	417	643	595	288	641	705	436	455	381	236	300	302	436	634	532	536	588
						1000	699	479	601	498	538	598	770	182	598	601	738	723	746	529	499	575	467
							1000	572	569	573	588	694	757	269	693	694	701	753	718	542	586	654	559
								1000	871	594	828	765	590	282	602	619	616	523	570	630	801	788	799
									1000	724	788	726	661	308	621	680	500	644	607	740	773	819	771
										1000	693	588	641	457	719	624	535	651	552	538	632	590	541
											1000	897	714	507	691	495	517	613	701	741	886	783	820
												1000	748	478	664	566	643	637	772	783	839	724	813
													1000	405	864	720	813	751	745	651	699	637	684
														1000	469	441	324	371	421	420	517	373	515
															1000	672	786	704	689	510	596	602	631
																1000	779	664	682	573	510	554	620
																	1000	864	716	460	507	578	609
																		1000	731	518	597	666	706
																			1000	591	667	718	633
																				1000	879	787	830
																					1000	839	892
																						1000	803
																							1000

An examination of the interrcorrelations of the Interaction Analysis variables, revealed only one significant correlation (i/d correlated significantly in an inverse relationship with the Lecture/Total teaching ratio). This indicated that there was good agreement between the manner in which the two variables were observed. The remaining intercorrelations were not significant and differ from the results obtained in the 1973-74 study. Correlations of the various interaction variables with results from the COR indicated that there was agreement between the observers and students that the subjects were democratic, kind, steady and systematic in their classroom behavior. These traits were evident in the 1973-74 study.

An examination of the intercorrelations of the COR indicated a pattern similar to that reported in the 1973-74 study. The relationship of the COR to the other variables is discussed above.

In general the correlational patterns found in the followup of the subjects during the second year of the study were similar to those reported at the end of the first year. Additional analyses of the data are possible.

Principal Evaluation of Subjects

The principal of each subject was asked to complete the Teacher Evaluation by Supervisor Form. This instrument consists of four questions in four broad areas including: (a) subject matter competence, (b) relations with students, (c) appropriateness of assignments, and (d) overall effectiveness. Table 3 shows a comparison of the mean ratings given for the subjects for each of the two years of the study. There were no significant differences in the ratings. It will be noted that the principals rated appropriateness of assignments somewhat lower in the current study. This may in part be due to the fact, that the ratings in the current study were made early in the school year, while the ratings in 1973-74 were made near the end of the school year. It should be noted that no ratings were significantly low.

TABLE 3

Comparison of Ratings of Principals on Four Dimensions of Teaching*

Dimensions	1973-74 (N=48)		1974-75 (N=28)	
	Mean	SD	Mean	SD
Subject Matter Competence	4.12	0.72	4.11	0.74
Relations With Students	4.16	0.84	4.07	0.94
Appropriateness of Assignments	4.23	0.72	3.93	0.66
Overall Effectiveness	4.14	0.71	4.07	0.81

*Ratings are on a 1-5 scale with 5 being the highest score.

Student Evaluation of Teaching

Two forms of the Student Evaluation of Teaching were used in the present study. The SET-I was used with children above the third grade while the SET-II was used with children below the third grade. It should be noted that only the SET-I was used in the 1973-74 study.

Student Evaluation of Teaching-I

Table 4 shows a comparison of the results of administering the SET-I to the children of subjects above the third grade. In general the subjects received lower score ratings from their students in 1974-75 on the factors of Friendly and Cheerful, Discipline, and Democratic Procedure than they received in 1973-74. Also, it will be noted that the standard deviations of the scores from the present study are much larger than in the 1973-74 study. The lower scores in 1974-75 on the above mentioned factors may be due to the earlier testing date. Children may not have formed definite opinions or they may have not had sufficient time to make adequate judgements.

TABLE 4

Comparison of Student Evaluation of Teaching-I

Factor	1973-74 (N=25) Mean	SD	1974-75 (N=25) Mean	SD
Friendly and Cheerful	344.28	45.63	293.84	117.62
Knowledgeable and Poised	355.68	40.04	361.56	171.91
Lively and Interesting	308.88	64.99	313.36	113.96
Firm Control (Discipline)	303.56	34.26	265.80	108.16
Non-Directive (Democratic Procedure)	257.36	42.21	243.00	105.18
Composite Score	315.64	29.34	295.51	107.72

Student Evaluation of Teaching-II

The SET-II was administered to the students of five subjects teaching in kindergarten through grade three. This instrument was not used during 1973-74, therefore, no comparisons with earlier data are possible. Table 5 shows the results of administering the instrument in five classrooms.

Comparisons with normative data presented by Haak, Kleiber, and Peck (2) indicated that the scores were within one standard deviation of the mean, with

Table 5

Student Evaluation of Teaching-II (Grades K-3, N=5)

Factor	Mean	SD
Rapport	5.53	0.63
Interactional Competence	4.20	0.43
Stimulating, Interaction Style (Combination of Rapport and Interactional Competence)	9.75	0.77
Unreasonable Negativity	6.24	1.92
Fosterance of Self-Esteem	6.18	0.50

the exception of the factor "Unreasonable Negativity." In this case, it appeared that the subjects in this study demonstrated more negativity in the classroom than did subjects in the normative study.

Interaction Analysis

A ten category interaction analysis system was utilized to record the observed classroom behavior of the subjects. The procedures, etc. are detailed in Report 73-4. Table 6 shows a comparison of the results of the 1973-74 study with the present study. There were no significant differences between the two sets of observations.

The I/D ratios in Table 6 are above the .40 averages for teachers according to the work of Campbell and Barnes (3). More indirect teaching has been associated in some studies with higher student achievement and positive attitude formation. The i/d ratio for 1974-75 are higher than ratios of less than 1.00 generally reported in the literature for average teachers. The subjects in this study appeared to be using more acceptance of feeling, praising, or encouraging and acceptance of use of ideas of student responses than average teachers.

Other ratios reported in Table 6 for the 1974-75 subjects are similar to the ratios of teachers reported in other studies. The ST/TT ratio indicated that the subjects were talking approximately 60 percent of the time. The Sil/Tot ratio indicated that somebody was talking approximately two-thirds of the time and the Lec/Tot ratio indicated that lecturing was occuring only about one-third of the time. In general, the average amount of time spent by the subjects in each of the categories was similar to the results found in Report 74-4. These results have been omitted from this report.

TABLE 6

Comparisons of Interaction Analysis*

Ratio	1973-74 (N=45) Mean	SD	1974-75 (N=28) Mean	SD
Indirect/Direct Teaching (I/D)	0.79	0.75	0.70	0.31
Indirect/Direct Teaching (i/d)	1.57	1.97	1.55	1.03
Student Talk/Teacher Talk (ST/TT)	0.59	0.57	0.58	0.44
Silence/Total Teaching (Sil/Tot)	0.45	0.93	0.34	0.36
Lecture/Total Teaching (Lec/Tot)	0.48	0.20	0.45	0.16

*Comparisons were made with the first set of observations recorded in the 1973-74 study.

Classroom Observation Record

The Classroom Observation Record was completed on each subject by the observers at the conclusion of the classroom visit. Table 7 shows a comparison of the scores achieved by the subjects for each of the two years of the study. In general the subjects were rated approximately 0.60 score points lower (on a scale of 7) in 1974-75 when compared with the results of the 1973-74 application of the instrument. This may in part by due to the earlier use during 1974-75 of the instrument in the subjects classrooms and also to the fact that the observers were different from the 1973-74 group. In general, the subjects were rated high on all 22 items.

Summary

In summary this chapter has presented an overview of the results of the second year of the application of the Tennessee Technological University Evaluation Model to a group of subjects who participated in the first year of the project. The instrumentation, again, appeared to be valid and reliable for use with graduates of the teacher preparation programs of the University. In general, the results are similar to those obtained with the first year of the application of the Model. Principals, generally rated the subjects quite high, as did students and independent observers. There appeared to be general agreement between the three groups with regard to the strengths of the subjects. Employing interaction analysis and a classroom observation scale revealed that the subjects were using more indirect than direct teaching methods and were exhibiting many of the characteristics of good teachers, as reported in the literature.

TABLE 7

Comparison for Each Dimension of the Classroom Observation Record

	1973-74 (N=45) Mean	SD	1974-75 (N=28) Mean	SD
Pupil Behavior				
1. Apathetic-Alert	6.00	0.87	5.07	1.18
2. Obstructive-Responsive	5.83	0.88	5.04	1.07
3. Uncertain-Confident	5.63	1.02	4.93	1.12
4. Depending-Initiating	5.25	1.19	4.89	1.23
Teacher Behavior				
5. Partial-Fair	6.13	0.79	5.54	1.04
6. Autocratic-Democratic	5.75	0.98	5.18	1.09
7. Aloof-Responsive	6.15	0.90	5.46	1.35
8. Restricted-Understanding	6.17	0.83	5.39	1.20
9. Harsh-Kindly	6.23	0.66	5.75	0.84
10. Dull-Stimulating	5.77	1.05	5.18	1.22
11. Sterotyped-Original	5.45	1.08	5.11	1.10
12. Apathetic-Alert	6.13	0.76	5.46	0.84
13. Unimpressive-Attractive	6.27	0.71	5.36	0.91
14. Evading-Responsible	6.29	0.80	5.71	0.85
15. Erratic-Steady	5.92	0.99	5.25	0.97
16. Excitable-Poised	6.13	0.94	5.46	0.92
17. Uncertain-Confident	5.85	1.05	5.39	0.99
18. Disorganized-Systematic	6.10	1.02	5.43	1.03
19. Inflexible-Adaptable	5.79	1.13	5.27	1.08
20. Pessimistic-Optimistic	5.81	1.07	5.30	1.07
21. Immature-Integrated	6.06	0.89	5.33	0.78
22. Narrow-Broad	5.90	0.83	5.11	0.97

References

1. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model, Cookeville, TN: Tennessee Technological University, College of Education. 1974. (mimeo), 92 pp.

2. Haak, Ruth A.; Kleiber, Douglas A. and Peck, Robert F. Student Evaluation of Teacher Instrument, II. Manual, Austin, Tex: The Research and Development Center for Teacher Education, University of Texas, 1972.

3. Campbell, J. R. and Barnes, C. W. "Interaction Analysis-A Breakthrough?" Phi Delta Kappan, 50:587-90, 1969.

CHAPTER III

PRESENTATION AND ANALYSIS OF DATA, 1974 B.S. GRADUATES

Chapter III contains a presentation and analysis of data for those individuals who received the B.S. in 1974 and were in their first year of the study. Information pertinent to those who received the M.A. is presented in Chapter IV. Means, standard deviations, and/or frequency counts and correlations are presented in tabular form for the variables studied. Explanatory information is included to facilitate the reader's understanding and usage of the report.

The data are presented in nine parts with each section corresponding to a major instrument used to gather data. Each section contains summary statistics as well as a discussion of the relevant variables that were correlated in the study. Table 8 shows an intercorrelation matrix of 51 selected variables, which is applicable to both the B.S. and M.A. 1974 graduates in the study. No attempt was made to show a complete matrix with all variables. Only variables significant at or beyond the .05 level will be discussed in the remainder of this report.

An understanding of Chapter I of this report is essential for the effective utilization of the remainder of the report. Also, Report 74-4 should be used as a companion guide to obtain additional information that may be of interest to the reader (in particular, copies of the relevant instruments and first year data).

Career Base Line Data

This section contains a summary of preliminary career base line data for the B.S. 1974 subjects in this study. Included in this section is information taken from each subject's college transcript and other records available in the College of Education. The data presented in this section appeared to be representative of information taken from other studies that have been carried out in the College of Education.

Table 9 shows a summary of the teaching level of the 33 B.S. level individuals. It will be noted that a large number were teaching in the lower grades.

The mean number of years of teaching experience (including 1974-75 as one year) was 2.1 years. Some individuals in the study had taught prior to completing their degree and those individuals that had taught part of the 1973-74 school year listed their experience as one additional year. Significant inverse relationships were noted between years of experience and such factors as scores on the National Teacher Examinations, principals' evaluations and certain factors from the COR (see Table 8).

The mean number of hours of credit and quality point average earned in social science, science, mathematics, English, education and psychology, and major teaching field and overall quality point average are shown in Table 10.

CORRELATION MATRIX OF SELECTI

	X	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
NATIONAL TEACHER EXAMINATION**																										
1. Teach. Area Exam.	605.63	72.79	32	1000	682	923	484	504	557	041	-178	202	209	-378	-132	-200	-179	-267	-042	-160	040	261	210	414	182	148
2. Prof. Ed. Test	227.16	38.63	32		1000	862	479	396	474	046	-149	084	078	-562	303	140	268	-085	302	260	174	-048	272	282	122	156
3. Composite	1176.19	161.14	32			1000	596	510	613	064	-156	218	215	-480	163	150	168	-364	221	139	096	158	259	397	139	121
QUALITY POINT AVERAGES**																										
4. Educ. & Psy.	3.31	0.38	32				1000	221	755	198	-222	170	-013	-297	059	193	013	-376	190	066	208	008	210	279	-110	-056
5. Major Field	3.47	1.26	32					1000	456	-036	117	184	-110	-086	-028	-158	-13	-232	095	-061	-087	-022	020	104	056	367
6. Overall	3.22	0.65	32						1000	230	-020	313	177	-244	035	120	-02	-154	130	-001	-169	-073	165	199	-132	-057
PRINCIPAL EVALUATION																										
7. I	4.02	0.75	42							1000	387	691	720	-096	-346	007	-180	-359	-456	-295	-349	145	196	-076	-368	-043
8. II	4.17	0.82	42								1000	512	504	209	-171	142	-089	-146	-334	-142	-456	010	092	-148	-364	-087
9. III	4.10	0.66	42									1000	768	-053	-349	-061	-250	-583	-495	-464	-283	-116	228	-090	-363	020
10. IV	4.17	0.77	42										1000	-121	-319	-234	-343	-503	-444	-475	-403	-205	192	-052	-367	-106
CALIFORNIA F-SCALE																										
11. F-Scale	104.66	19.28	44											1000	-264	-113	-362	-186	-362	-294	-012	077	-228	-309	-182	-032
STUDENT EVALUATION OF TEACHING-I																										
12. I	325.96	152.86	23												1000	722	854	744	835	972	-	-	-	-	-	033
13. II	328.52	93.69	23													1000	685	645	640	821	-	-	-	-	-	-107
14. III	302.87	130.66	23														1000	536	867	896	-	-	-	-	-	056
15. IV	299.27	83.97	23															1000	638	796	-	-	-	-	-	-087
16. V	246.31	126.89	23																1000	878	-	-	-	-	-	011
17. VI	299.87	105.87	23																	1000	-	-	-	-	-	-017
STUDENT EVALUATION OF TEACHING-II																										
18. I	5.14	1.73	24																		1000	274	338	339	731	-141
19. II	5.12	2.71	24																			1000	037	343	411	-203
20. III	11.84	12.85	24																				1000	145	334	-121
21. IV	7.62	2.49	24																					1000	717	333
22. V	6.33	2.11	24																						1000	-135
INTERACTION ANALYSIS																										
23. I/D	0.59	0.43	45																							1000
24. I/d	3.27	1.12	45																							
25. ST/TT	0.67	0.99	45																							
26. Pil/Tot	0.57	0.94	45																							
27. Lec/Tot	0.45	0.19	45																							
CLASSROOM OBSERVATION RECORD																										
28. 1	5.11	0.91	45																							
29. 2	4.98	1.02	45																							
30. 3	4.98	1.08	45																							
31. 4	4.67	1.09	43																							
32. 5	5.30	0.86	42																							
33. 6	5.16	0.97	42																							
34. 7	5.42	1.08	43																							
35. 8	5.51	0.91	45																							
36. 9	5.48	0.92	45																							
37. 10	5.44	1.05	45																							
38. 11	4.97	1.16	44																							
39. 12	5.51	0.92	45																							
40. 13	5.49	0.84	42																							
41. 14	5.84	0.77	45																							
42. 15	5.46	1.13	42																							
43. 16	5.64	0.93	42																							
44. 17	5.19	1.13	43																							
45. 18	5.73	0.78	42																							
46. 19	5.28	1.10	43																							
47. 20	5.27	0.91	45																							
48. 21	5.36	0.98	45																							
49. 22	5.15	0.89	45																							
YEARS EXP. & GRADE LEVEL**																										
50. Years Exp.	2.06	1.87	32																							
51. Grade Level	(A-5-6)		32																							

*Underline indicates a correlation significant at or beyond the .05 level. Decimal points omitted.
**Based only on students with B.S.

TABLE 8

MATRIX OF SELECTED VARIABLES - Ss IN FIRST YEAR OF STUDY*

	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1	210	416	182	140	139	-055	216	-001	526	563	608	517	602	294	455	186	279	299	613	315	068	482	274	416	315	336	169	377	440	473	-320	281
8	272	282	122	156	260	113	-008	-085	190	096	195	325	371	352	347	260	380	305	561	202	038	141	191	157	120	-042	-021	343	367	352	-426	109
6	259	397	139	121	290	-055	098	064	200	155	306	412	468	484	465	419	430	429	657	315	087	330	316	339	238	055	149	555	471	522	-472	318
	210	279	-110	-056	306	193	171	-035	339	381	215	341	388	376	275	425	555	460	629	293	118	306	350	328	344	204	291	392	409	480	-022	-120
2	020	104	056	367	-004	019	-094	-162	245	112	046	053	086	149	060	069	095	012	208	192	109	067	088	022	030	137	138	-033	114	337	026	-144
5	165	109	-132	-057	142	009	051	084	291	293	095	285	275	285	246	268	350	300	272	256	123	091	280	357	335	092	285	340	293	449	-090	015
3	196	-076	-368	-043	022	209	-116	040	336	071	280	300	127	126	000	111	222	136	184	038	000	000	303	242	230	344	045	-007	222	000	-348	-130
0	092	-248	-364	-087	-005	161	-288	-071	245	-067	201	206	211	154	165	167	216	214	257	366	-053	182	359	247	476	384	376	307	411	172	-263	-076
6	228	-090	-363	020	247	-033	020	145	405	193	181	272	231	299	096	144	268	238	302	111	-111	019	374	335	326	329	243	173	339	212	-227	-061
5	192	-052	-347	-106	-021	-065	-126	145	256	-005	155	142	058	120	-081	-003	121	044	075	-034	-003	-221	197	132	014	067	-061	-059	088	003	-457	160
7	-228	-309	-182	-032	019	115	070	028	189	046	122	-005	-189	-332	-053	-037	082	-106	-104	[illegible]	-223	-031	-134	-178	018	002	058	-204	-093	-274	[illegible]	-287
	-	-	-	033	-317	-037	-152	107	182	221	230	155	314	321	164	003	-146	133	342	216	005	236	-003	247	-064	187	067	322	114	548	-011	-326
	-	-	-	-107	-133	-290	-159	353	300	249	231	334	567	296	151	102	110	191	414	197	[illegible]	095	339	322	054	200	388	414	103	530	107	-379
	-	-	-	056	014	-149	-246	136	281	217	216	228	424	395	313	231	-034	330	548	177	052	326	043	421	042	303	146	572	066	483	048	-290
	-	-	-	-087	-290	-028	-194	253	-033	-095	075	015	167	097	-068	-179	-230	003	[illegible]	009	-336	017	-008	051	-197	-133	-106	-050	090	248	-153	-167
	-	-	-	011	054	-021	-128	164	071	122	195	156	468	419	343	260	027	264	471	204	073	107	024	464	007	090	117	621	036	650	-083	-311
	-	-	-	-017	-276	-078	-195	182	190	176	245	186	618	355	200	047	-065	197	618	206	-113	224	051	359	-046	197	098	385	102	534	-011	-330
4	308	328	751	-141	-051	-095	141	-307	-257	-191	-194	-290	-158	-354	-063	018	116	-271	-162	-162	-135	264	036	-043	092	-046	186	149	-177	-149	189	-053
0	037	363	611	-203	-003	-095	-203	383	348	113	531	399	095	087	423	238	048	248	295	010	257	300	037	087	126	267	-402	-113	298	-334	059	-039
	1000	165	324	-121	-070	-082	035	131	-103	-291	-287	007	-091	158	143	109	141	-109	014	122	194	033	133	110	215	053	187	295	149	407	110	099
		1000	717	935	428	172	-307	326	325	364	-148	-082	413	307	029	155	290	085	291	363	128	185	259	289	236	231	134	038	232	-025	113	284
			1000	-135	-736	-108	483	-552	-869	-545	-320	-473	-711	-829	-554	-566	-572	-598	-609	-588	108	-459	-539	-584	-563	-592	-681	-542	-639	-612	178	-111
				1000	-010	120	-325	-260	143	094	025	085	-017	127	142	133	-001	110	179	224	-055	227	062	094	084	130	173	029	027	-051	085	-180
					1000	-071	-041	255	027	049	-089	099	257	048	115	137	060	127	058	-031	064	059	132	124	148	-098	154	199	-022	013	-152	063
						1000	-086	-069	144	067	192	225	089	138	-026	083	086	060	114	100	057	084	030	025	133	093	077	-100	-052	-112	-056	-241
							1000	-079	-099	178	-040	020	041	-110	-075	-081	085	-123	075	-089	007	-024	-004	-064	070	-022	039	027	133	048	182	-199
								1000	147	097	079	115	262	276	050	058	-038	064	179	-004	-047	-141	105	199	-034	026	-006	145	043	290	-191	283
									1000	757	668	727	665	697	615	260	316	544	681	392	046	387	643	334	378	333	402	300	347	332	-004	-272
										1000	599	687	621	626	287	204	118	474	515	355	-043	235	497	410	322	491	358	302	438	405	214	-262
											1000	822	668	510	274	303	122	662	620	326	-001	297	343	361	301	387	365	277	389	305	-237	-441
												1000	680	582	673	367	203	643	740	401	-141	372	427	463	420	402	382	447	511	668	-101	-421
													1000	715	761	652	403	774	805	765	115	348	673	773	778	610	734	798	723	807	-336	343
														1000	541	554	335	722	792	590	193	316	533	649	539	517	534	664	542	799	-407	-013
															1000	838	699	676	711	718	143	787	518	617	717	514	639	809	595	703	-171	276
																1000	725	623	670	661	245	713	557	612	682	575	681	855	672	859	-267	193
																	1000	685	830	551	044	640	470	622	628	439	649	831	560	681	-168	213
																		1000	789	725	036	518	683	814	729	613	710	726	724	737	-213	094
																			1000	749	-015	574	706	794	718	541	754	820	799	790	-423	073
																				1000	091	599	737	773	869	673	831	791	733	814	-074	220
																					1000	155	089	102	055	137	-001	149	084	268	-269	118
																						1000	331	330	661	385	573	683	641	573	007	007
																							1000	905	800	687	813	693	774	808	-251	063
																								1000	829	743	804	736	787	790	-204	167
																									1000	738	868	846	787	790	-079	178
																										1000	695	804	678	804	148	040
																											1000	838	732	800	-003	102
																												1000	738	874	-256	437
																													1000	813	-085	073
																														1000	-381	332
																															1000	-197
																																1000

Table 9

Teaching Level of B.S. Subjects (N=33)

Level	No.	Percent
Preschool (including Kindergarten)	9	27.3
Grades 1-3	7	21.2
Non-graded-lower grades	4	12.1
Grades 4-7	6	18.2
Non-graded-middle school	3	9.2
Grades 8-12	2	6.1
Special Education	2	6.1

Table 10

Undergraduate College Record (N=32)

Subject Matter Area	No. Hours Credit		QPA	
	Mean	SD	Mean	SD
Social Science	31.28	16.85	2.58	0.75
Science	21.84	6.64	2.55	0.67
Mathematics	8.86	3.49	2.77	0.75
English	21.34	8.00	2.73	0.58
Education and Psychology	58.50	16.17	3.31	0.38
Major Teaching Field	67.16	20.81	3.47	1.24
Overall QPA	-	-	3.04	0.72

The data presented closely parellels the results of other studies (1,2). In general the subjects of the study achieved quality point averages from .10 to .30 higher than those B.S. level individuals in the 1973-74 (first year) study.

Quality point averages correlated significantly with scores achieved on the NTE (see Table 8). Significant positive correlations were noted between QPA in education and psychology and various factors of the COR, and overall QPA and various factors of the COR. Similar correlational patterns were noted in the 1973-74 study (see Report 74-4).

A total of 27 subjects had completed the American College Test prior to admission to the University. Mean scores for each of the four sub test and composite score are shown in Table 11. In general the subjects scored at the mean when compared with all students enrolled in the teacher education programs of the University.

Table 11

American College Test Scores for B.S. Graduates (N=27)

Subtest	Mean	SD
English	19.04	8.00
Mathematics	15.74	5.70
Social Science	17.89	8.65
Natural Science	21.56	14.86
Composite	18.67	7.10

Table 12 shows the means and standard deviations of the scores on the Kuder Perference Record achieved by 12 subjects. The Kuder is normally completed by students during their freshman year at the University. The results are similar to those obtained with larger groups of subjects(3) and with the subjects in the first year of this present longitudinal study (4). Because of the size of the sample and the usefulness of the data, no attempts were made at further analyses.

Mean scores and standard deviations achieved by the 32 subjects on the National Teacher Examinations are shown in Table 13. The results are comparable with the scores achieved by other groups of students at the University (5,6,7). Overall the subjects ranked at about the 46th percentile on the composite score of the test.

The intercorrelational patterns of the various subtests of the NTE were similar to those reported by Ayers and Rohr (8). For purposes of this report only the relationships of the Professional Education Test, Teaching Area Examination and Composite Score of the NTE with other variables will be discussed (see Table 8, Correlation Matrix Variables 1, 2, 3). In general,

Table 12

Means and Standard Deviations of Scores from the Kuder Preference Record (N=12)

Subtest	Mean	SD
Kuder V	41.33	4.36
Kuder 0	34.17	14.03
Kuder 1	30.17	12.19
Kuder 2	23.33	8.44
Kuder 3	26.42	13.22
Kuder 4	38.08	8.95
Kuder 5	25.67	9.49
Kuder 6	21.92	8.64
Kuder 7	16.33	8.90
Kuder 8	57.33	10.57
Kuder 9	44.75	13.79

positive significant relationships were noted between scores on the NTE and factors from the COR. Also, significant positive relationships were noted between NTE scores and Factor IV Unreasonable Negativity of the SET-II. Significant negative relationships were noted between scores on the NTE and the California F-Scale. Thus students with higher NTE scores tended to be more non-authoritarian.

General Information-Teacher Preparation Inventory

All subjects were asked to complete a rating sheet with regard to certain courses and other areas of emphasis related to their teacher preparation program. Data were obtained from all 33 subjects and are comparable with information from other studies of larger numbers of graduates (9, 10, 11, 12, 13, 14). Table 14 shows the results of the survey conducted as a part of the study reported in this document. This Table contains the percentage of subject ratings of each area and the mean and standard deviations of the ratings. In general the lowest ratings were given to the areas of (a) ability to work with parents, (b) skill

Table 13

National Teacher Examination Scores for B.S. Graduates (N=32)

Test	Mean	SD
Advisory Part Scores		
Social Studies	5.63	0.81
Language and Fine Arts	5.37	1.22
Science	5.84	1.02
Mathematics	5.78	0.98
Teaching Area Examination	605.63	72.29
Professional Education Test	227.16	38.63
Commons Examination		
Written English	55.56	9.51
Social Studies, Literature & Fine Arts	54.41	8.99
Science and Mathematics	58.09	9.58
Wt. Subtotal	340.59	46.58
Wt. Common	569.34	79.09
Composite	1176.19	141.14

in maintaining discipline, (c) skill in group work, (d) skill in guidance of children, (e) skill in helping students determine objectives and (f) skill in the application of learning theory in the classroom. Based on the subject's ratings, potential weaknesses of the teacher education program can be identified.

The subjects were asked to rate the value of certain core education and psychology courses on a scale of 5 to 1 (very satisfactory to very unsatisfactory), Table 15, shows the results of this phase of the study. The courses receiving the lowest ratings were Introduction to Teaching and Social Foundations of Education. It should be noted that substantial changes have been made in these courses in recent years. Most subjects completed the courses prior to these changes. The resulting changes have made the orientation of the courses more practical and less theoretical. In general, the subjects

Table 14

Percentage Ratings, Means, and Standard Deviations of Ratings of Selected Items Related to Undergraduate Teacher Preparation Program (N=33)

ITEM	1 Very Unsatisfactory	2 Somewhat Unsatisfactory	3 Neither satisfactory nor Unsatisfactory	4 Somewhat Satisfactory	5 Very Satisfactory	Blank	$\bar{X}$	SD
1. Your teaching personality:								
a. Ability to work with children	0.0	15.2	6.1	36.4	36.4	6.1	4.00	1.07
b. Ability to work with colleagues	3.0	3.0	15.2	30.3	42.4	6.1	4.13	1.02
c. Ability to work with members of the community	6.1	12.1	12.1	30.3	33.3	6.1	3.77	1.26
d. Ability to maintain a friendly disposition	0.0	9.1	24.2	30.3	30.3	6.1	3.87	0.99
e. Ability to lead a well-rounded life, to enjoy work and play	3.0	6.1	15.2	30.3	39.4	6.1	4.03	1.08
f. Ability to work with parents	9.1	9.1	15.2	27.3	27.3	12.1	3.62	1.32
2. Your general knowledge and understanding of:								
a. The physical sciences	0.0	3.0	15.2	63.6	9.1	9.1	3.87	0.63
b. The biological sciences	3.0	9.1	3.0	60.6	18.2	6.1	3.87	0.96
c. American culture and institutions	3.0	15.2	12.1	39.4	24.2	6.1	3.71	1.13
d. Art, music, literature, philosophy	6.1	6.1	12.1	45.5	24.2	6.1	3.81	1.11
e. Mathematics	3.0	6.1	21.2	45.5	18.2	6.1	3.74	0.97
3. Your ability to use the English language effectively	6.1	6.1	0.0	54.5	27.3	6.1	3.97	1.08
4. Your knowledge and understanding of the subjects which you teach	3.0	6.1	6.1	39.4	39.4	6.1	4.13	1.02
5. Your understanding of children and youth:								
a. Insight into causes of behavior	6.1	6.1	12.1	30.3	39.4	6.1	3.97	1.20
b. Skill in working with exceptional children (the bright, the dull, the handicapped)	3.0	9.1	24.2	27.3	30.3	6.1	3.77	1.12
c. Skill in group work	6.1	15.2	18.2	30.3	24.2	6.1	3.55	1.23
d. Skill in maintaining discipline	12.1	15.2	12.1	39.4	15.2	6.1	3.32	1.30
e. Skill in guidance of children	9.1	12.1	6.1	45.5	15.2	6.1	3.52	1.24

Table 14 (Continued)

6. Your understanding of the nature of the learning process:								
a. Skill in helping students determine objectives	3.0	18.2	19.1	54.5	9.1	6.1	3.52	1.03
b. Skill in motivating students	3.0	6.1	15.2	45.5	24.2	6.1	3.87	0.99
c. Skill in pupil-teacher planning	3.0	6.1	24.2	42.4	18.2	6.1	3.71	0.97
d. Skill in using a variety of teaching methods	6.1	3.0	6.1	39.4	39.4	6.1	4.10	1.11
e. Skill in evaluating pupil growth and class procedures with pupils	3.0	6.1	15.2	48.5	21.2	6.1	3.84	0.97
f. Ability to construct appropriate tests and learning materials	6.1	0.0	21.2	39.4	27.3	6.1	3.87	1.06
g. Skill in the application of learning theory in the classroom	6.1	12.1	24.2	42.4	9.1	6.1	3.39	1.05
h. Skill in providing differentiated learning experiences for various groups and individuals	3.0	15.2	12.1	45.5	18.2	6.1	3.65	1.08
7. Your knowledge of sources of teaching materials:								
a. Printed materials	3.0	6.1	18.2	36.4	30.3	6.1	3.90	1.04
b. Audio-visual materials	3.0	3.0	15.2	33.3	39.4	6.1	4.10	1.01
c. Community resources	3.0	9.1	18.2	39.4	24.2	6.1	3.77	1.06
d. Library and library materials	0.0	9.1	9.1	39.4	36.4	6.1	4.10	0.94
8. Your ability to use teaching materials effectively	0.0	6.1	9.1	42.4	36.4	6.1	4.16	0.86
9. Your knowledge and understanding of:								
a. The purposes of the school in relation to the over-all purpose of society	0.0	6.1	21.2	39.4	27.3	6.1	3.94	0.89
b. The social structure of the community and its meaning for education	0.0	6.1	33.3	30.3	24.2	6.1	3.77	0.92
c. The institutions of the community	0.0	9.1	36.4	24.2	24.2	6.1	3.68	0.98
d. The different value-patterns of social-economic classes	3.0	9.1	18.2	36.4	27.3	6.1	3.81	1.08
e. The economic life of the community	3.0	3.0	39.4	21.2	27.3	6.1	3.71	1.04
f. Appropriate ethical behavior of the teacher	3.0	6.1	15.2	30.3	39.4	6.1	4.03	1.08

Table 15

Percentage Ratings, Means, and Standard Deviations of Ratings of Selected Courses in Undergraduate Program (N=33)

ITEM	Very Unsatisfactory 1	Somewhat Unsatisfactory 2	Neither Satisfactory nor Unsatisfactory 3	Somewhat Satisfactory 4	Very Satisfactory 5	Did Not Teach At TTU or Blank 6	$\bar{X}$	SD
a. INTRODUCTION TO TEACHING	33.3	18.2	15.2	9.1	12.1	12.1	2.41	1.45
b. GENERAL PSYCHOLOGY	9.1	12.1	18.2	24.2	24.2	12.1	3.48	1.33
c. HUMAN GROWTH AND DEVELOPMENT	3.0	6.1	3.0	33.3	39.4	15.2	4.18	1.06
d. EDUCATIONAL PSYCHOLOGY	6.1	3.0	12.1	33.3	30.3	15.2	3.93	1.15
e. SOCIAL FOUNDATIONS OF EDUCATION	21.2	18.2	24.2	15.2	12.1	9.1	2.77	1.36
f. HISTORY AND PHILOSOPHY OF EDUCATION	18.2	12.1	12.1	21.2	24.2	12.1	3.24	1.53
g. EVALUATION AND GUIDANCE	6.1	9.1	24.2	15.2	33.3	12.1	3.69	1.29
h. METHODS COURSES	6.1	6.1	3.0	33.3	42.4	9.1	4.10	1.19
i. MICRO TEACHING	6.1	6.1	0.0	27.3	39.4	21.2	4.12	1.24
j. STUDENT TEACHING	6.1	0.0	3.0	12.1	69.7	9.1	4.53	1.07

perceived more value in the courses involving practical applications and less value in the theoretical courses. This was also evident in the study ocnducted by Ayers and Brimm (15) of a sample of 200 seniors just completing the teacher education program of the University.

Correlations of the data presented in Tables 14 and 15 with other variables in the study were computed. However, the results were inconclusive and the data have been omitted from this report.

Principal Evaluation of Subjects

The principal of each subject was asked to complete two instruments designed to evaluate weaknesses and strengths of the individual. The first instrument consisted of 59 items related to the teacher preparation program of the subjects and has been used for the past five years in the evaluative efforts of the Office of the Assistant to the Dean. Table 16 shows the percentage ratings and the mean and standard deviations for each item. Included in this table are the results for both the B.S. level and M.A. level 1974 graduates (these were combined since it was noted that there was little difference in the ratings between the two groups). The lowest mean ratings were given in the area of (a) making effective uses of community resources, (b) handling disciplinary problems, and (c) getting acquainted with the community and its resources. It should be noted that no ratings were significantly low. Highest ratings were in the areas of (a) adaptability in the classroom, (b) ability to lead a well rounded life, (c) appropriate ethical behavior, (d) understanding and using courses of study and curriculum guides and (e) knowledge and understanding of subjects taught.

Principals were also asked to complete the Teacher Evaluation by Supervisor Form. This instrument consists of four questions in four broad areas including: (a) subject matter competence, (b) relations with students, (c) appropriateness of assignments, and (d) overall effectiveness. Table 17 shows the mean ratings for each of these items for the B.S. level 1974 graduates (data for the M.A. graduates is shown in Chapter IV).

Intercorrelations of the results of the administration of both instruments with the other variables in the study were made. Results obtained with the later instrument are reported in Table 8 and included data for both the B.S. and M.A., 1974 graduates. High positive intercorrelations were noted between each of the four dimensions measured by the Teacher Evaluation by Supervisor Form. In general, there were significant negative correlations between the four factors of the instrument and various factors of the SET-I and SET-II. This is in opposition to the results obtained in the first year of the study. Significant positive correlations were noted between the four factors and various items from the COR. This is in agreement with the results of the first of the year of the study.

Personality Scale

The California F-Scale Forms 45 and 40 was used to assess one aspect of the personality of the subjects. The F-Scale range of possible values is 28 to

Table 16

Percentage Ratings, Means, and Standard Deviations of Selected Items Rated by Principals (N=49)

ITEM	No opportunity to observe 0	Very unsatisfactory 1	Somewhat unsatisfactory 2	Neither satisfactory nor unsatisfactory 3	Somewhat satisfactory 4	Very satisfactory 5	$\bar{X}$	SD
Understanding the goals of the school	18.4	0.0	0.0	0.0	28.6	53.1	4.65	0.48
Personal appearance	18.4	2.0	2.0	0.0	8.2	69.4	4.73	0.82
Enthusiasm for the teaching profession	16.3	2.0	0.0	0.0	22.5	59.2	4.63	0.73
Adaptability in the classroom	20.4	0.0	0.0	0.0	20.4	59.2	4.74	0.44
Cooperation and dependability	16.3	0.0	0.0	2.0	12.2	69.4	4.81	0.46
Attitudes toward children	18.4	2.0	0.0	0.0	20.4	59.2	4.65	0.74
Attitudes toward fellow teachers	18.4	0.0	0.0	0.0	22.5	59.2	4.73	0.45
Attitudes toward supervisors	16.3	0.0	0.0	2.0	18.4	63.3	4.73	0.50
Accuracy in maintaining official records and reports	20.4	0.0	2.0	0.0	26.5	51.0	4.59	0.64
Understanding and using courses of study and curriculum guides	30.6	0.0	0.0	2.0	14.3	53.1	4.74	0.51
Making effective use of community resources	26.5	0.0	0.0	8.2	30.6	34.7	4.36	0.68
Handling disciplinary problems	18.4	0.0	2.0	6.1	32.7	40.8	4.38	0.74
Getting acquainted with the community and its people	20.4	0.0	0.0	12.2	24.5	42.9	4.39	0.75
Keeping abreast of recent professional developments	22.5	0.0	0.0	8.2	18.4	51.0	4.55	0.69
Evaluating pupil progress	20.4	0.0	0.0	2.0	30.6	46.9	4.56	0.55
Motivating pupils who seem disinterested	18.4	0.0	2.0	2.0	34.7	42.9	4.45	0.68
Relationships with parents	28.6	0.0	0.0	4.1	24.5	42.9	4.54	0.61
Participation in professional activities	18.4	0.0	0.0	6.1	22.5	53.1	4.58	0.64
Potential for advancement in the profession	16.3	0.0	0.0	2.0	22.5	59.2	4.68	0.52
Relationships with fellow teachers	20.4	0.0	0.0	2.0	24.5	53.1	4.64	0.54
Overall effectiveness of this person in comparison with other teachers in your school	16.3	0.0	2.0	2.0	26.5	53.1	4.56	0.67
Overall qualifications of this person to teach in your particular school situation	16.3	0.0	2.0	0.0	24.5	57.1	4.63	0.62

Table 16 (Continued)

1. Teaching personality:								
a. Ability to work with children	18.4	0.0	0.0	0.0	26.5	55.1	4.68	0.47
b. Ability to work with colleagues	16.3	0.0	0.0	0.0	24.5	59.2	4.71	0.46
c. Ability to work with members of the community	20.4	0.0	0.0	2.0	28.6	49.0	4.59	0.55
d. Ability to maintain a friendly disposition	16.3	0.0	0.0	0.0	22.5	61.2	4.73	0.45
e. Ability to lead a well-rounded life, to enjoy work and play	22.4	0.0	0.0	0.0	18.4	59.2	4.76	0.43
f. Ability to work with parents	26.5	0.0	0.0	2.0	24.5	46.9	4.61	0.55
2. General knowledge and understanding of:								
a. The physical sciences	44.9	0.0	0.0	2.0	18.4	34.7	4.59	0.57
b. The biological sciences	46.9	0.0	0.0	2.0	18.4	32.7	4.58	0.58
c. American culture and institutions	46.9	0.0	0.0	2.0	18.4	32.7	4.58	0.58
d. Art, music, literature, philosophy	51.0	0.0	0.0	2.0	24.5	22.5	4.42	0.58
e. Mathematics	44.9	0.0	0.0	4.1	22.5	28.6	4.44	0.64
3. Ability to use the English language effectively	16.3	0.0	2.0	0.0	26.5	55.1	4.61	0.63
4. Knowledge and understanding of the subject taught	18.4	0.0	0.0	0.0	18.4	63.3	4.78	0.42
5. Understanding of children and youth:								
a. Insight into causes of behavior	24.5	0.0	0.0	6.1	32.7	36.7	4.41	0.64
b. Skill in working with exceptional children (the bright, the dull, the handicapped)	36.7	0.0	2.0	6.1	18.4	36.7	4.42	0.81
c. Skill in group work	20.4	0.0	0.0	0.0	36.7	42.9	4.54	0.51
d. Skill in maintaining discipline	16.3	0.0	4.1	0.0	32.6	46.9	4.46	0.75
e. Skill in guidance of children	26.5	0.0	2.0	2.0	24.5	44.9	4.53	0.70
6. Understanding of the nature of the learning process								
a. Skill in helping students determine objectives	28.6	0.0	0.0	6.1	22.5	42.9	4.51	0.66
b. Skill in motivating students	20.4	0.0	2.0	2.0	28.6	46.9	4.51	0.68
c. Skill in pupil-teacher planning	28.6	0.0	2.0	0.0	22.5	46.9	4.60	0.65
d. Skill in using a variety of teaching methods	18.4	0.0	0.0	4.1	26.5	51.0	4.58	0.59
e. Skill in evaluating pupil growth and class procedures with pupils	22.5	0.0	0.0	4.1	26.5	46.9	4.55	0.60
f. Ability to construct appropriate tests and learning materials	24.5	0.0	0.0	4.1	24.5	46.9	4.57	0.60
g. Skill in the application of learning theory in the classroom	22.5	0.0	0.0	4.1	28.6	44.9	4.53	0.60
h. Skill in providing differentiated learning experiences for various groups and individuals	22.5	0.0	0.0	0.0	32.7	44.9	4.58	0.50

Table 16 (Continued)

7. Knowledge of sources of teaching materials:								
a. Printed materials	18.3	0.0	0.0	2.0	20.4	59.2	4.70	0.52
b. Audio-visual materials	16.3	0.0	0.0	2.0	22.5	59.2	4.68	0.52
c. Community resources	20.4	0.0	0.0	6.1	28.6	44.9	4.49	0.64
d. Library and library materials	18.4	0.0	0.0	0.0	28.6	53.1	4.65	0.48
8. Ability to use teaching materials effectively	22.4	0.0	0.0	0.0	28.6	49.0	4.63	0.49
9. Knowledge and understanding of:								
a. The purposes of the school in relation to the overall purpose of society	18.4	0.0	0.0	2.0	26.5	53.1	4.63	0.54
b. The social structure of the community and its meaning for education	26.5	0.0	0.0	0.0	34.7	38.8	4.53	0.51
c. The institutions of the community	28.6	0.0	0.0	2.0	26.5	42.9	4.57	0.56
d. The different value-patterns of social-economic classes	26.5	0.0	0.0	2.0	28.6	42.9	4.56	0.57
e. The economic life of the community	22.5	0.0	0.0	2.0	26.5	49.0	4.61	0.55
f. Appropriate ethical behavior of the teacher	18.4	0.0	0.0	0.0	12.2	69.4	4.85	0.36

Table 17

Means and Standard Deviations of Principals Ratings of 1974 B.S. Graduates on Four Dimensions of Teaching (N=29)*

Dimensions	Mean	SD
Subject Matter Competence	4.03	0.78
Relations With Students	4.17	0.89
Appropriateness of Assignments	4.10	0.68
Overall Effectiveness	4.17	0.81

*Ratings are on a 1-5 scale with 5 being the highest score.

196 with 112 the mid-point. The lower the value, the more non-authoritarian the indication. A total of 32 B.S. level 1974 graduates completed the instrument with a mean score of 107.0 and a standard deviation of 17.18. This would indicate that the subjects in the study tended toward being non-authoritarian. Scores ranged from 67 to 168. In comparison, subjects from the first year of the study achieved a mean score of 98.6. Thus, the group in the second year of the study was slightly more authoritarian.

An examination of the correlational pattern of scores from the F-Scale for both B.S. and M.A. 1974 graduates (Table 8) revealed significant negative relationships between scores on the NTE and the F-Scale. Also, there were significant negative correlations between the F-Scale scores and the Lively and Interesting and Democratic Procedures Factors of the SET-I, the Negativity Scale of the SET-II and the Autocratic-Democratic dimension of the COR. The results would tend to indicate that less authoritarian subjects tended to make higher scores on the NTE, and were more lively and interesting and used more democratic procedures in the classroom. Also, they tended to be less negative and more [illegible].

Student Evaluation of Teaching

Two forms of the Student Evaluation of Teaching were employed in the study. The SET-I was used with children in the classes of subjects above the third grade, while the SET-II was used with children below the fourth grade level. The instruments measure similar traits.

Table 18 shows the mean and standard deviation of the scores for each of the five factors and the composite score for the SET-I for the 11 B.S., 1974 graduates teaching above the third grade. The maximum possible score for any

Table 18

Student Evaluation of Teaching-I, 1974 B.S. Graduates (N=11)

Factor	Mean	SD
Friendly and Cheerful	310.73	143.51
Knowledgeable and Poised	314.45	70.13
Lively and Interesting	306.53	136.37
Firm Control (Discipline)	299.50	48.55
Non-Directive (Democratic Procedure)	242.18	136.70
Composite Score	295.91	98.49

one factor or the composite score is 400. Highest ratings were received on the factors Friendly and Cheerful and Knowledgeable and Poised. This is in agreement with the results of the first year of the study. However, it should be noted that some scores are as much as 20 points lower than means achieved in 1973-74.

Table 19 shows the results of the administration of the SET-II in the classrooms of the 19 individuals teaching below the fourth grade. Mean scores

Table 19

Student Evaluation of Teaching-II (Grades K-3), 1974 B.S. Graduates (N=19)

Factor	Mean	SD
Rapport	5.08	1.72
Interactional Competence	5.39	2.89
Stimulating, Interaction Style (Combination of Rapport and Interactional Competence)	9.46	2.58
Unreasonable Negativity	8.02	2.12
Fosterance of Self-Esteem	6.49	1.83

on each of the five factors are similar to the results reported by Haak, Kleiber, and Peck (16). Since this instrument was not employed in 1973-74, it is not possible to make comparisons with other graduates of the University.

The intercorrelational matrix shown in Table 8 includes the results of using the SET-I and SET-II in the classrooms of both B.S. and M.A. 1974 graduates. In general, there were significant positive correlations between the various factors of the SET-I and also for the SET-II. Appropriate significant positive and negative correlations were noted between the various factors of the two instruments and the various dimensions of the COR.

Interaction Analysis

A ten category interaction analysis system was utilized to record observed classroom behavior of the subjects. The system proposed by Amidon and Flanders (17) was implemented with the aid of three specially trained graduate assistants. One three to four set of observations was made on each subject. Each set of observations contains from three to six 20 minute periods of observation.

Table 20 shows a summary of the means and standard deviations of the various ratios for the observations. The data is comparable with that gathered during the first year of the study.

Table 20

Means and Standard Deviations for Interaction Analysis
1974 B.S. Graduates (N=31)

Ratio	Mean	SD
Indirect/Direct Teaching (I/D)	0.66	0.46
Indirect/Direct Teaching (i/d)	1.33	1.96
Student Talk/Teacher Talk (ST/TT)	0.78	1.18
Silence/Total Teaching (Sil/Tot)	0.51	0.77
Lecture/Total Teaching (Lec/Tot)	0.40	0.18

The I/D ratio in Table 20 is above the .40 average for teachers reported in the work of Campbell and Barnes (18). More indirect teaching has been associated in some studies with higher student achievement and positive attitude formation. The i/d ratio of 1.33 is also higher than the ratio of less than 1.00 reported for the average teacher. The subjects in this study used more acceptance of feeling, praising, or encouraging than average teachers.

Other ratios in Table 20 are similar to the ratios of teachers reported in other studies.

Table 21 shows a summary of the average percentage of time spent by the B.S., 1974 graduates at various grade levels acting in each of the ten interaction categories. In general the amount of direct influence increases from the lower grades through the upper grades of the secondary school. The amount of time spent in lecture increased almost 75 percent from the lower grades through the upper levels of the high school.

Table 21

Average Percentage of Time Spent by 1974 B.S. Graduates (N=31) by Grade Levels Acting in Each of the Ten Interaction Categories*

Grade Level	1	2	3	4	5	6	7	8	9	10
Grades K-3 (N=17)	0.1	8.9	2.0	11.5	19.2	9.8	1.0	21.5	10.0	15.2
Grades 4-6 (N=9)	0.4	6.2	2.4	7.1	25.1	8.3	0.7	12.0	15.9	22.0
Grades 7-9 (N=1)	0.0	5.4	1.3	7.9	27.5	9.4	0.8	8.9	21.4	17.5
Grades 10-12 (N=2)	0.0	3.0	0.1	5.4	13.0	12.8	0.4	3.5	13.8	47.9
All Grades (N=29)	0.2	7.5	2.0	9.6	25.0	9.6	0.9	13.2	12.4	19.6

*Categories 1-4, Indirect Influence of Teacher; 1=Accepts Feelings, 2=Praises or Encourages, 3=Accepts or Uses Ideas of Students, 4=Asks Questions.
Categories 5-7. Direct Influence of Teacher; 5=Lecturing, 6=Giving Directions, 7=Criticizing or Justifying Authority.
Categories 8-9, Student Talk; 8=Student Talk-Response, 9-Student Talk-Initiation.
Category 10,Silence or Confusion.

Correlations of Interaction Analysis scores from subjects at both levels (see Table 8) indicated only two minor correlations with scores from the COR. It was noted that there were significant positive correlations between the Lec/Tot ratio and the Pessimistic-Optimistic and Narrow-Broad dimensions of the COR.

Classroom Observation Record

The Classroom Observation Record was completed on each subject by the observers at the conclusion of each visit. Items 1 through 4 of the instrument assess four dimensions of pupil behavior, and the remaining 18 items

assess dimensions of teacher behavior. Table 22 contains a summary of the means and standard deviations for each of the 22 items of the instrument for the B.S. level, 1974 graduates. The lowest mean scores on the Teacher Behavior Scale were on items 17 (Uncertain-Confident), 19 (Inflexible-Adaptable), 6 (Autocratic-Democratic), 22 (Narrow-Broad), and 20 (Pessimistic-Optimistic). High intercorrelations were noted for the COR dimensions when examining the total scores for both the B.S. and M.A. 1974 graduates (see Table 8).

Summary

In summary this chapter has presented an overview of the results of the second year of the application of the Tennessee Technological University Evaluation Model to a new group of (1974) B.S. level graduates. The career baseline data gathered on the subjects in this study was comparable to that from other studies. The ratings of the teacher preparation program again are comparable with those obtained during the last several years. In general, principals rated the subjects quite highly in such areas as ability to work with fellow teachers, ethical behavior, and knowledge and understanding of the subject matter taught. Criticisms of the subjects by the principals included a need for making more effective uses of community resources, handling disciplinary problems, and getting acquainted with the community and its resources. Students preceived the subjects in a manner similar to the principals. Based on measures obtained with the California F-Scale, the subjects were to some degree non-authoritarian in their beliefs. Employing interaction analysis and a classroom observation scale revealed that the subjects were using more indirect than direct teaching methods and were exhibiting many of the characteristics of good teachers as reported in the literature. The results are similar to the first year results; however, significant differences were noted in the correlational patterns of the scores.

Table 22

Means and Standard Deviations for Each Dimension of the Classroom Observation Record, 1974 B.S. Graduates (N=31)

Dimension	Mean	SD
Pupil Behavior		
1. Apathetic-Alert	5.07	0.96
2. Obstructive-Responsive	4.87	0.97
3. Uncertain-Confident	4.93	1.20
4. Depending-Initiating	4.52	1.15
Teacher Behavior		
5. Partial-Fair	5.40	0.89
6. Autocratic-Democratic	5.07	0.94
7. Aloof-Responsive	5.36	1.14
8. Restricted-Understanding	5.48	0.89
9. Harsh-Kindly	5.48	1.00
10. Dull-Stimulating	5.39	1.10
11. Stereotyped-Original	4.92	1.28
12. Apathetic-Alert	5.39	0.99
13. Unimpressive-Attractive	5.52	0.89
14. Evading-Responsible	5.90	0.79
15. Erratic-Steady	5.23	1.18
16. Excitable-Poised	5.49	1.02
17. Uncertain-Confident	5.00	1.22
18. Disorganized-Systematic	5.70	0.82
19. Inflexible-Adaptable	5.04	1.11
20. Pessimistic-Optimistic	5.12	0.88
21. Immature-Integrated	5.25	1.01
22. Narrow-Broad	4.86	0.77

REFERENCES

1. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model. Cookeville, TN: College of Education, Tennessee Technical University, 1974.

2. Ayers, Jerry B. and Rohr, Michael E. "Relationship of Selected Variables and Success in a Teacher Preparation Program," Educational and Psychological Measurement, 34(4):933-37, Winter, 1974.

3. Ibid.

4. Ayers, Report 74-4.

5. Ibid.

6. Ayers, Jerry B. "Predicting Quality Point Averages in Master's Degree Programs in Education," Educational and Psychological Measurement, 31:491-95, 1971.

7. Ayers and Rohr, 1974.

8. Ibid.

9. Ayers, Jerry B. Report I-Restudy. A Survey of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 Through 1969, Cookeville, TN: College of Education, Tennessee Technological University, 1971.

10. Ayers, Jerry B. Report III-Restudy. A Report of Four Surveys of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 Through 1970. Cookeville, TN: College of Education, Tennessee Technological University, 1971.

11. Ayers, Jerry B. Report V-Restudy. A Report of Two Surveys of the 1971 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: College of Education, Tennessee Technological University, 1972.

12. Ayers, Jerry B. Report VI-Restudy. A Report of Three Surveys of the 1972 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: College of Education, Tennessee Technological University, 1974.

13. Ayers, Jerry B. Report 74-1. A Report of Three Surveys of the 1973 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: College of Education, Tennessee Technological University, 1974.

14. Ayers, Jerry B. Report 75-1. A Report of Three Surveys of the 1974 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: College of Education, Tennessee Technological University, 1975.

15. Ayers, Jerry B. and Brimm, Jack L. "Students Attitudes Toward Education Courses," College Student Journal, 1975 (In press).

16. Haak, Ruth A.; Kleiber, Douglas A. and Peck, Robert F. Student Evaluation of Teacher Instrument, II. Manual, Austin, Tex: The Research and Development Center for Teacher Education, University of Texas, 1972.

17. Amidon, Edmund J. and Flanders, Ned A. The Role of the Teacher in the Classroom, Minneapolis: Association for Productive Teaching, 1971.

18. Amidon, Edmund J. and Hough, J. B. Interaction Analysis: Theory, Research and Application, Reading, Mass: Addison Wesley Publishing Company, 1967.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA, 1974 M.A. GRADUATES

Chapter IV contains a presentation and analysis of data for those individuals who received the M.A. in 1974 and were participating in the study for the first year. Information pertinent to those who received the B.S. was presented in Chapter III. Means, standard deviations and/or frequency counts and correlations are presented in tabular form for the variables studied. Explanatory information is included to facilitate the reader's understanding and usage of the report.

The data are presented in seven parts with each section corresponding to a major instrument used to gather data. Each section contains summary statistics as well as a discussion of the relevant variables that were correlated in the study. Table 8 (Chapter III) shows the intercorrelation matrix of 51 selected variables, which is applicable to both the B.S. and M.A. individuals in the study. Only variables significant at or beyond the .05 level will be discussed in the remainder of this report.

An understanding of Chapters I and III of this report is essential for the effective utilization of the remainder of the report. Also, Report 74-4 should be used as a companion guide, to obtain additional information that may be of interest to the reader (in particular copies of relevant instruments and first year data).

Career Base Line Data

This section contains a summary of some preliminary career base line data for the M.A., 1974 subjects in the study. The subjects had taught a mean of 4.5 years with a range of experiences from 1 to 10 years. Their overall mean graduate quality point average was 3.57 with a standard deviation of 0.25. Table 23 shows a summary of the teaching level of the 16 M.A. level individuals. It will be noted that a majority was teaching above the elementary level.

Further information on the graduates of the M.A. program can be obtained through a variety of reports available through the office of the Assistant to the Dean of the College of Education. No futher data will be given at this point.

General Information-Teacher Preparation Inventory

All subjects were asked to complete a rating sheet with regard to certain courses and other areas of emphasis related to their teacher preparation program. Data were obtained from all 16 subjects and are comparable with information from other studies of larger numbers of graduates (see references 9-14 of

Table 23

Teaching Level of M.A. Subjects (N=16)

Grade Level	No.	Percent
Kindergarten - Grade 3	3	18.7
Grades 4 - 6	2	12.5
Grades 7 - 9	3	18.7
Grades 10 - 12	6	37.5
Special Education	2	12.5

Chapter III). Table 24 shows the results of the survey conducted as a part of the study reported in this document. In general, the lowest ratings were given to the library and its holdings and also to the Placement Service of the University. It should be pointed out that few graduate students make use of the services provided by the University's Placement Office. The strongest areas as perceived by the graduates were (a) interest of the faculty in the students, (b) personal relationships with the faculty and (c) general instruction in the major fields of education.

The subjects were asked to rate the value of certain core graduate education courses on a scale of 5 to 1 (very satisfactory to very unsatisfactory). Table 26 shows the results of this phase of the study. The courses generally receiving the lowest ratings were statistics, research, and history of western education. These courses have been frequently cited in evaluative studies conducted by other institutions. Courses receiving the highest ratings were (a) field experience or practicum, (b) supervision of instruction and (c) public school administration.

Principal Evaluation of Subjects

The principal of each subject was asked to complete two instruments designed to evaluate weaknesses and strengths of the individual. The first instrument consisted of 59 items related to the teacher preparation program of the subjects and has been used for the past five years in the evaluative efforts of the Office of the Assistant to the Dean. Table 16 (Chapter III) shows the percentage ratings and the mean and standard deviations for each item combined for both the B.S. and M.A. level, 1974 graduates. There were no differences in the separate groups.

Principals were also asked to complete the Teacher Evaluation by Supervisor Form. Table 26 shows the results for the 1974 M.A. graduates. In

Table 24

Percentage Ratings, Means, and Standard Deviations of Selected Items Related to Graduate Teacher Preparation Program (N=16)

Course	1 Very unsatisfactory	2 Somewhat unsatisfactory	3 Neither satisfactory nor unsatisfactory	4 Somewhat satisfactory	5 Very satisfactory	6 No Opinion	$\bar{X}$	SD
a. Interest of professors in students	0.0	0.0	0.0	18.8	81.3	0.0	4.81	0.40
b. Announcements of deadlines	0.0	12.5	0.0	43.8	43.8	0.0	4.19	0.98
c. Accessibility of professors	0.0	12.5	0.0	50.0	31.3	0.0	3.94	1.06
d. Amount of guidance given in planning and carrying out program	0.0	0.0	18.8	12.5	68.6	0.0	4.50	0.82
e. Personal relationship with professors	0.0	0.0	0.0	25.0	75.0	0.0	4.75	0.45
f. Placement service	0.0	0.0	18.8	0.0	0.0	81.2	3.00	0.00
g. Library staff	0.0	12.5	12.5	25.0	18.8	31.3	3.73	1.10
h. Periodicals contained in library	6.3	37.5	6.3	12.5	18.8	18.8	3.00	1.41
i. Adequacy of books and other materials contained in library	18.8	18.8	6.3	31.3	18.8	6.3	3.13	1.51
j. Adequacy of Learning Resources Center in College of Education	0.0	0.0	6.3	43.8	31.3	18.8	4.31	0.63
k. Instruction in major field	0.0	0.0	0.0	31.3	68.8	0.0	4.69	0.48
l. Instruction in minor	0.0	6.3	6.3	43.8	25.0	18.8	4.21	0.98
m. Scheduling of courses	0.0	12.5	6.3	43.8	31.3	0.0	4.00	0.97

Table 25

Percentage, Means, Standard Deviation and Number of Graduates Rating Quality of Various Courses (Maximum N=16)

Course	No Respondents	Very unsatisfactory 1	Somewhat unsatisfactory 2	Neither satisfactory nor unsatisfactory 3	Somewhat satisfactory 4	Very satisfactory 5	$\bar{X}$	SD
Educational Research	15	0.0	26.7	6.7	33.3	33.3	3.73	1.22
Educational Statistics	15	13.3	13.3	20.0	40.0	13.3	3.27	1.28
Field Experience or Practicum	15	0.0	0.0	0.0	20.0	80.0	4.80	0.41
Research Report or Problem	16	0.0	0.0	25.0	25.0	50.0	4.25	0.86
Thesis	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
Public School Administration	9	0.0	0.0	0.0	33.3	66.7	4.67	0.50
Supervision of Instruction	9	0.0	0.0	0.0	11.2	88.8	4.89	0.33
Curriculum Development	6	0.0	0.0	16.7	16.7	66.6	4.50	0.84
School Community Relations	8	0.0	0.0	0.0	25.0	75.0	4.75	0.46
History of Western Education	5	20.0	40.0	0.0	0.0	40.0	3.00	1.87
Educational Sociology	4	0.0	25.0	0.0	25.0	50.0	4.00	1.41
Introduction to Guidance	3	0.0	0.0	0.0	0.0	100.0	5.00	0.00
Counseling Techniques	3	0.0	33.3	0.0	0.0	67.7	4.00	1.73
Informational Materials for Counselors	4	0.0	25.0	0.0	25.0	50.0	4.00	1.41
Measurement and Evaluation	6	16.7	16.7	0.0	16.7	50.0	3.67	1.75
Courses in the Teaching of Reading	4	0.0	0.0	25.0	25.0	50.0	4.25	0.96

Table 26

Means and Standard Deviations of Principals' Ratings of 1974 M.A. Graduates on Four Dimensions of Teaching (N=14)*

Dimensions	Mean	SD
Subject Matter Competence	4.00	0.71
Relations With Students	4.15	0.69
Appropriateness of Assignments	4.23	0.60
Overall Effectiveness	4.17	0.72

*Ratings are on a 1-5 scale with 5 being the highest score.

general, the ratings of these individuals were comparable with those of other groups in the study.

Personality Scale

The California F-Scale Forms 45 and 40 was used to assess one aspect of the personality of the subjects. The 1974, M.A. subjects completed the instrument with a mean score of 109.4 and a standard deviation of 16.2. The subjects appeared to be somewhat more authoritarian than those individuals who had just completed the B.S. This supports the findings of a recent study by Ayers and Turck (1). Results of the correlation of scores from the F-Scale with other variables are presented in Chapter III.

Student Evaluation of Teaching

Two forms of the Student Evaluation of Teaching were employed in the study. The SET-I was used with children of subjects above the third grade, while the SET-II was used with children of subjects below the fourth grade.

Table 27 shows the means and standard deviations of scores for the 12 M.A. level subjects teaching above the third grade. In general the scores were comparable with those from other groups. The correlational pattern of the six scores with the other variables in the study is discussed in Chapter III.

Table 28 shows a summary of the results of the use of the SET-II with those M.A. graduates teaching below the fourth grade level. The results are comparable with other groups in the study. The correlational pattern of the scores with the other variables in the study is shown in Table 8 of Chapter III.

Table 27

Student Evaluation of Teaching-I, 1974 M.A. Graduates (N=12)

Factor	Mean	SD
Friendly and Cheerfuly	339.91	164.53
Knowledgeable and Poised	341.41	107.86
Lively and Interesting	301.17	131.27
Firm Control (Discipline)	290.41	108.87
Non-Directive (Democratic Procedure)	250.09	94.25
Composite Score	303.50	115.52

Table 28

Student Evaluation of Teaching-II (Grades K-3), 1974 M.A. Graduates (N=4)

Factor	Mean	SD
Rapport	5.13	2.17
Interactional Competence	3.93	1.90
Stimulating, Interaction Style (Combination of Rapport and Interactional Competence)	13.32	1.86
Unreasonable Negativity	5.35	3.47
Fosterance of Self-Esteem	5.57	3.59

Interaction Analysis

Table 29 shows a summary of the means and standard deviations of the various ratios for the observations made as a part of the use of the Interaction Analysis with the M.A. 1974 graduates. The data are comparable with that gathered for the B.S. level individuals. It appeared that the M.A. graduates were using more indirect teaching techniques than the corresponding B.S. level graduates. Correlational patterns are shown in Table 8 of Chapter III.

Table 29

Means and Standard Deviations for Interaction Analysis
1974 M.A. Graduates (N=14)

Ratio	Mean	SD
Indirect/Direct Teaching (I/D)	0.45	0.30
Indirect/Direct Teaching (i/d)	1.58	1.61
Student Talk/Teacher Talk (ST/TT)	0.43	0.19
Silence/Total Teaching (Sil/Tot)	0.70	1.26
Lecture/Total Teaching (Lec/Tot)	0.54	0.20

Table 30 shows a summary of the average percentage of time spent by the M.A. graduates at various grade levels acting in each of the ten interaction categories. The percentage of time spent in each category at each of the grade levels was about comparable.

Table 30

Average Percentage of Time Spent by 1974 M.A. Graduates (N=14) by Grade Levels Acting in Each of the Ten Interaction Categories*

Grade Level	1	2	3	4	5	6	7	8	9	10
Grades K-3 (N=3)	0.3	11.1	0.6	11.5	17.1	14.1	0.2	14.9	10.3	19.7
Grades 4-5 (N=2)	0.0	9.0	1.8	18.6	24.7	3.6	0.6	18.3	10.4	13.0
Grades 7-9 (N=3)	0.0	7.0	1.1	11.05	51.5	2.2	0.1	8.8	5.9	12.3
Grades 10-12 (N=6)	0.0	4.5	1.1	5.0	35.4	6.8	0.1	10.2	9.7	27.0
All Grades (N=14)	0.1	7.1	1.4	11.2	34.4	4.7	0.3	12.8	9.2	18.8

*Categories 1-4, Indirect Influence of Teacher; 1=Accepts Feeling, 2=Praises or Encourages, 3=Accepts or Uses Ideas of Students, 4=Asks Questions.
Categories 5-7, Direct Influence of Teacher; 5=Lecturing, 6=Giving Directions, 7=Criticizing or Justifying Authority.
Categories 8-9, Student Talk; 8=Student Talk-Response, 9=Student Talk-Initiation.
Category 10, Silence or Confusion.

Classroom Observation Record

The Classroom Observation Record was completed on each subject by the observers at the conclusion of each visit. Items 1 through 4 of the instrument assess four dimensions of pupil behavior, and the remaining 18 items assess dimensions of teacher behavior. Table 31 contains a summary of the means and standard deviations for each of the 22 items of the instrument for the M.A. level, 1974 graduates. The lowest mean scores on the Teacher Behavior Scale were on items 13 (Unimpressive-Attractive), 11 (Stereotyped-Original) and 6 (Autocratic-Democratic). Highest scores were on items 16 (Excitable-Poised) and 15 (Erratic-Steady). In general the ratings of the M.A. graduates were higher than for the B.S. graduates. Many of the characteristics of good teachers were noted in this phase of the study.

Summary

In summary this chapter has presented an overview of the results of the second year of the application of the Tennessee Technological University Evaluation Model to a new group of 1974 M.A. level graduates. It should be noted that only a sample of four graduates was used in the first year of the study. Career baseline data was gathered on the subjects that can be used for compari on purposes in later years of the study. The ratings of the teacher preparation program are comparable with those obtained in other larger studies. In general, principals rated the subjects high in all areas. However, some weaknesses were noted. Students preceived the subjects in a manner similar to the principals. Based on measures obtained with the California F-Scale the subjects were to some slight degree non-authoritarian in their beliefs. Employing interaction analysis and a classroom observation scale revealed that the subjects were using more indirect than direct teaching methods and were exhibiting many of the characteristics of good teachers as reported in the literature. The results are similar to the results obtained with B.S. level 1974 graduates (see Chapter III).

Table 31

Means and Standard Deviations for Each Dimension of the Classroom Observation Record, 1974 M.A. Graduates (N=15)

Dimension	Mean	SD
Pupil Behavior		
1. Apathetic-Alert	5.21	0.80
2. Obstructive-Responsive	5.21	1.12
3. Uncertain-Confident	5.00	0.78
4. Depending-Initiating	5.00	0.88
Teacher Behavior		
5. Partial-Fair	5.75	0.75
6. Autocratic-Democratic	5.39	1.04
7. Aloof-Responsive	5.57	0.94
8. Restricted-Understanding	5.58	1.00
9. Harsh-Kindly	5.46	0.69
10. Dull-Stimulating	5.54	0.97
11. Stereotyped-Original	5.08	0.90
12. Apathetic-Alert	5.79	0.70
13. Unimpressive-Attractive	5.43	0.76
14. Evading-Responsible	5.71	0.73
15. Erratic-Steady	6.00	0.82
16. Excitable-Poised	6.08	0.49
17. Uncertain-Confident	5.57	0.85
18. Disorganized-Systematic	5.79	0.70
19. Inflexible-Adaptable	5.77	0.93
20. Pessimistic-Optimistic	5.64	0.92
21. Immature-Integrated	5.57	0.94
22. Narrow-Broad	5.67	0.89

References

1. Ayers, Jerry B. and Turck, Merton J. "Longitudinal Study of Change in Teacher Dogmatism," College Student Journal (in press).

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The objectives of this chapter are threefold: (1) summarize briefly the total evaluative study that was conducted during the 1974-75 school year; (2) draw conclusions based on the findings of the study; and (3) make recommendations relative to the findings.

Summary

The purposes of this study were to: (1) provide information for faculty and administrators concerned with teacher preparation programs at Tennessee Technological University in making decisions pertinent to curriculum evaluation and development; (2) aid in the process of making long range plans for improving the total educational program of the University with particular emphasis on the teacher preparation programs; and (3) continue the development and refinements of the Tennessee Technological University Teacher Evaluation Model.

Three distinct groups of subjects were used in the study. The first group consisted of 36 individuals who participated in the first year of the study and received their degrees between 1971 and 1973. The second group consisted of 33 individuals who received their B.S. in 1974 and the third group was composed of 16, 1974 graduates of the M.A. program. Detailed data were collected on each subject by use of standardized instruments administered by specially trained graduate assistants or from university records. Basic instrumentation and procedures for the study were pilot tested during the first year of the study and included: (1) university permanent records and transcript information; (2) principals' evaluation of each subject by the use of two different instruments; (3) administration of the California F-Scale (only those subjects who were participating in the study for the first time) to measure individual prejudices and anti-democratic tendencies; (4) administration of the Student Evaluation of Teaching to the students of the subjects; (5) administration of the Classroom Observation Record; and (6) a ten category interaction analysis system to record observed classroom behavior. All data obtained in the study were classified, coded, and key punched for analysis. Descriptive statistics, intercorrelations and comparisons were computed. The major findings of the study were divided into three parts, corresponding to year of participation in the study or educational level (B.S. or M.A.).

Ratings by principals of subjects participating in the second year of study were consistently high and corresponded with the results of the first year. Student ratings of the subjects above the third grade were somewhat lower than the ratings given during the first year. However, it should be pointed out that the ratings were made earlier in the year and the students might not be fully familiar with their teachers. A student evaluation of teaching instrument was introduced for use with children in grades kindergarten through three. The results of the use of this instrument indicated that the subjects were rated similarly to those

in national samples. Results of the administration of the ten category interaction analysis system revealed that the subjects were acting in a manner similar to the way they were performing during the first year of the study. There were no major differences in computed teaching ratios or average percentage of time acting in the various interaction analysis categories. The use of the Classroom Observation Record indicated that the subjects, as a whole, were employing good teaching techniques when compared to other studies reported in the literature. Significant correlations were found between many of the 37 major variables employed in the study.

The major findings of the study for those individuals that completed the B.S. in 1974 and were in the first year of the study indicated that they had completed nearly two years of classroom teaching (including 1974-75 as one full year). Almost half of the individuals were teaching below grade three and their mean overall undergraduate quality point average was 3.04 (slightly higher than for those individuals in the first year of the study). Mean scores achieved on the National Teacher Examinations indicated that the subjects were achieving at approximately the 46th percentile. As would be expected, correlations between achievement (as measured by quality point averages) and scores from the National Teacher Examinations were high. At the time of admission to the University, the subjects had achieved a mean American College Test score of 18.7 which was at the mean for the total University student body. Data reported relative to the ratings of the value of certain education courses and of overall aspects of the teacher preparation program were similar to those reported in other studies.

Principals' evaluations of the subjects were consistently high; however, it was noted that principals perceived some problems with the subjects in making effective uses of community resources, handling disciplinary problems, and getting acquainted with the community and its resources. Highest ratings were in the areas of adaptability in the classroom, appropriate ethical behavior, and understanding and knowledge of subjects taught. Similar items were reported in the first year of the study. Analysis of the results of the administration of the California F-Scale revealed that the mean score of the subjects was 107.0 indicating the group as a whole tended toward being non-authoritarian. This score was somewhat higher than for subjects in the first year of the study. As a group, the students of the subjects rated the individuals as being very knowledgeable and poised in their teaching. However, they saw the individuals, to some degree, as being more directive than non-directive in their teaching. These traits were evident at both the lower and upper grade levels and was also noted in the first year of the project. Results of the administration of the ten category interaction analysis system revealed that the subjects tended to use more indirect than direct methods in their teaching. Analysis of data obtained by use of the Classroom Observation Record indicated that the subjects possessed many of the characteristics of good teachers as reported in the literature. Results of the use of the interaction analysis system and the Classroom Observation Record are comparable with those obtained during the first year of the study.

Major findings of the study relative to those individuals that received the M.A. in 1974 and were in the first year of the study revealed that the subjects were very similar to the B.S. level graduates. Principals perceived similar traits as did the students of the subjects. The subjects achieved a higher mean score (109.4) on the California F-Scale than other groups of individuals

who have participated in the study. Analysis of data obtained by use of the interaction analysis system indicated a higher percentage use of indirect teaching techniques in the classroom and less dependence on such techniques as lecturing. Scores achieved on the Classroom Observation Record were higher than for the other groups of subjects.

An examination of the correlation of 51 relevant variables for both groups (combined) indicated a number of significant correlations. However, a comparison with the first year study indicated that there were differences in the correlation patterns.

Conclusions

Following are the major conclusions based on the findings of the study. It should be noted that additional analyses of the data can be performed that may make additional conclusions warranted. This section is divided into two major sub parts, i.e., conclusions related to the use of the Evaluation Model and conclusions based on the application of the model to the evaluation of the graduates of the teacher preparation programs of the University.

Use of the Evaluation Model

1. The plan of evaluation outlined in this report and the companion document Report 74-4 appeared to be useful in gathering information for modifying and improving the programs of teacher preparation at Tennessee Technological University.

2. Instrumentation employed in the study appeared to be valid and provided essential information with regard to the graduates of the teacher preparation programs.

3. Inclusion of the Student Evaluation of Teaching-II for use with children below the third grade provided a new dimension to the project and also allowed for the collection of more reliable and useful data about subjects teaching at the lower grade levels.

4. Modifications can be made in the original model that can lead to more valid and useful information for an institution wishing to replicate the plan of evaluation.

5. Some problems may have resulted in the collection and analyses of data because of the attrition of subjects from the first to the second year of the study. Additional attrition in the future may make it difficult to draw valid and reliable conclusions.

Evaluation of Graduates--Year II Participants

The following conclusions apply to those individuals that participated in both years of the study. Also included are some comparision with subjects who participated in the study for the first time during 1974-75.

1. Ratings, observations, and analyses of data for subjects participating in the study for the second year, were similar to those obtained during the first year. In general, most variables remained nearly constant.

2. There was agreement between the ratings given by the principals and the independent observers employing the Classroom Observation Record.

3. The subjects appeared to possess above average competency in subject matter and had above average relations with students when compared with other teachers in the schools.

4. As perceived by students and independent observers, the subjects appeared to be stimulating, original, and adaptable in the classroom.

5. Based on results of the use of interaction analysis and the Classroom Observation Record, the subjects appeared to be using democratic and systematic behavior in the classroom.

6. In general, subjects were rated overall somewhat lower by students during the second year, than the first year.

7. The subjects in grades kindergarten through three appeared to demonstrate more negativity in their teaching than did subjects in national samples.

8. The subjects in the study appeared to be using more indirect than direct teaching methods in their classrooms. Indirect/direct ratios based on the interaction analysis system were higher than for comparable groups. The ratios were similar for both years of the study.

9. Other ratios computed from the interaction analysis observations were comparable to those reported in the literature.

10. Many of the characteristics of good teachers, as reported in the literature, were noted as a result of the administration of the Classroom Observation Record.

11. Overall there were few differences between the data gathered on the subjects during the two years of the study.

Evaluation of Graduates--Year I B.S. Level Participants

The following conclusions apply to those individuals that received the B.S. in 1974 and were participating in the study for the first year.

12. The mean quality point averages in education and psychology, major teaching field, and overall for the subjects ranged from 3.04 (overall) to 3.47 (major field). These mean quality point averages were above the overall averages for the graduates of the College of Education and slightly above those of the B.S. level participants in the first year of the study.

13. Subjects with higher quality point averages in education and psychology courses had better relations with students and were, in general, more

friendly and cheerful, knowledgeable and poised, and non-directive in their teaching.

14. Subjects who achieved higher quality point averages in their major teaching field tended to be more authoritarian than subjects who achieved at a lower level.

15. A profile of the subjects' scores from the administration of the Kuder Preference Record appeared similar to that of other groups of subjects who were graduates of the teacher preparation programs of the University.

16. The mean American College Test score of almost 19 was comparable with other students at the University.

17. Overall scores achieved by the subjects on the National Teacher Examinations placed the individuals at approximately the 46th percentile. This is comparable with other groups of University graduates that have been studied.

18. Subjects who tended to achieve higher on the Professional Education Test of the NTE tended to be more knowledgeable and poised.

19. Ratings of various aspects of the teacher preparation program of the University by the subjects were similar to that of other groups of individuals.

20. In general, principals' ratings of the subjects were high. Some weaknesses were noted in the areas of discipline and lack of effective use of community resources. Highest ratings of the subjects were noted in the areas of ethical behavior and general knowledge of subject matter.

21. The subjects of this study appeared to be more non-authoritarian than authoritarian as measured by the California F-Scale. Subjects in the 1974-75 study were more authoritarian than first year subjects in the 1973-74 phase of the study.

22. The ratings of the subjects by the students correlated highly with ratings made by the principals and the independent observers who completed the interaction analysis observations and Classroom Observation Record.

23. The subjects in the study appeared to be using more indirect than direct teaching methods in their classrooms. Indirect/Direct ratios based on the interaction analysis system used were higher than for comparable groups. Other ratios computed from the interaction analysis observations were comparable to those reported in the literature.

In general the subjects of this phase of the study were very similar to those that participated in the first year of the project in 1973-74. However, some minor differences appeared. As might be expected, it was difficult to identify specific problem areas. Principals praised the teachers as did their students. However, it must be kept in mind that the subjects who participated in this study were volunteers. Therefore, some bias has been introduced into the total study that may make some of the conclusions invalid when applied to the total population of B.S. level graduates.

Evaluation of Graduates--Year II M.A. Level Participants

The following conclusions apply to those individuals that recieved the M.A. in 1974 and were participating in the study for the first year.

24. The mean quality point average for the group was 3.57 and they had taught a mean of 4.5 years (including 1974-75).

25. Ratings of various aspects of the teacher preparation program of the University were similar to these reported by other groups of graduates of the M.A. programs.

26. The most valuable courses as perceived by the subjects while they were enrolled in the M.A. program included: (a) field experience or practicum, (b) supervision of instruction and (c) public school administration.

27. Major strengths of the graduate programs of the University included: (a) interest of the faculty, (b) personal relationships with the faculty and (c) general instruction in the major fields of education.

28. Major strengths and weaknesses of the subjects, as perceived by principals, were similar to those enumerated for the B.S. level graduates.

29. The subjects appeared to be slightly more non-authoritarian than authoritarian as measured by the California F-Scale. It should be noted that the M.A. level subjects appeared to be more authoritarian, than all other groups of graduates studied.

30. In general, M.A. level subjects were rated higher by students than other groups.

31. Patterns of interaction analysis were similar to those reported for the B.S. level graduates. However, the M.A. level subjects appeared to be using more indirect methods more often than any other group under study.

32. Many of the characteristics reported in the literature of good teachers were noted as a result of the administration of the Classroom Observation Record.

In general, the M.A. level subjects appeared to be similar in most respects to other groups studied. As with the other groups under study, it was difficult to isolate specific problem areas and to make specific recommendations. Also, it should be kept in mind that the M.A. level subjects who participated in the study were volunteers. Therefore, some bias has been introduced into the total study that may make some conclusions invalid when applied to the total population of individuals that have received the M.A. at the University.

Recommendations

Based on the conclusions of this study, it is felt that the following recommendations are warranted. These recommendations center largely around the continuation and modification of the study outlined in this report. It is left to the

reader to make recommendations relative to his individual problems and toward needed changes in the teacher preparation programs of the institution.

1. The plan outlined in this report should be replicated during 1975-76 adding an additional group of subjects who complete their degrees in 1975.

2. Continuing contact should be maintained with other institutions pursuing similar projects, and the literature related to teacher evaluation should be continuously monitored.

3. Consideration should be given to the use of other instruments to gather data as they become available.

4. Based on subjective evidence, it appeared that the most valid times for observation in the classrooms are from mid-October through mid-November and from about the end of January through the middle of April.

5. Further analyses of the data appear warranted. However, it is recommended that these data analyses be done based on individual needs of the faculty and administration of the University.

6. A more extensive data bank of information on all graduates of the teacher preparation program should be established. As in the past, it has been found that some data on some graduates could not be located.

7. Data from standardized tests administered to freshman should not be included in the study. Many times this data is missing from permanent records and also, during the past several years, the freshman testing program has been changed or modified.

8. Better methods should be developed to optimize the participation of subjects in the study.

9. Development work on a complete set of computer programs should be continued.

10. Faculty and administrators should be encouraged to make more use of the data that has been collected and to request additional analyses.

CHAPTER VI

PLANS FOR THE CONTINUATION OF THE STUDY

This Chapter describes the tentative plans for continuation of the intensive evaluation activities of the graduates of the teacher education programs of Tennessee Technological University. Major emphasis in this chapter will be placed upon the plans that have been tentatively formulated for the 1975-76 studies. The assumption has been made that the level of funding for the project will remain at a relatively constant level and includes the allocation of three one-half time graduate assistants, approximately one-half time of a professional staff member, $750 for travel, and $750 for supplies, expenses, and communications.

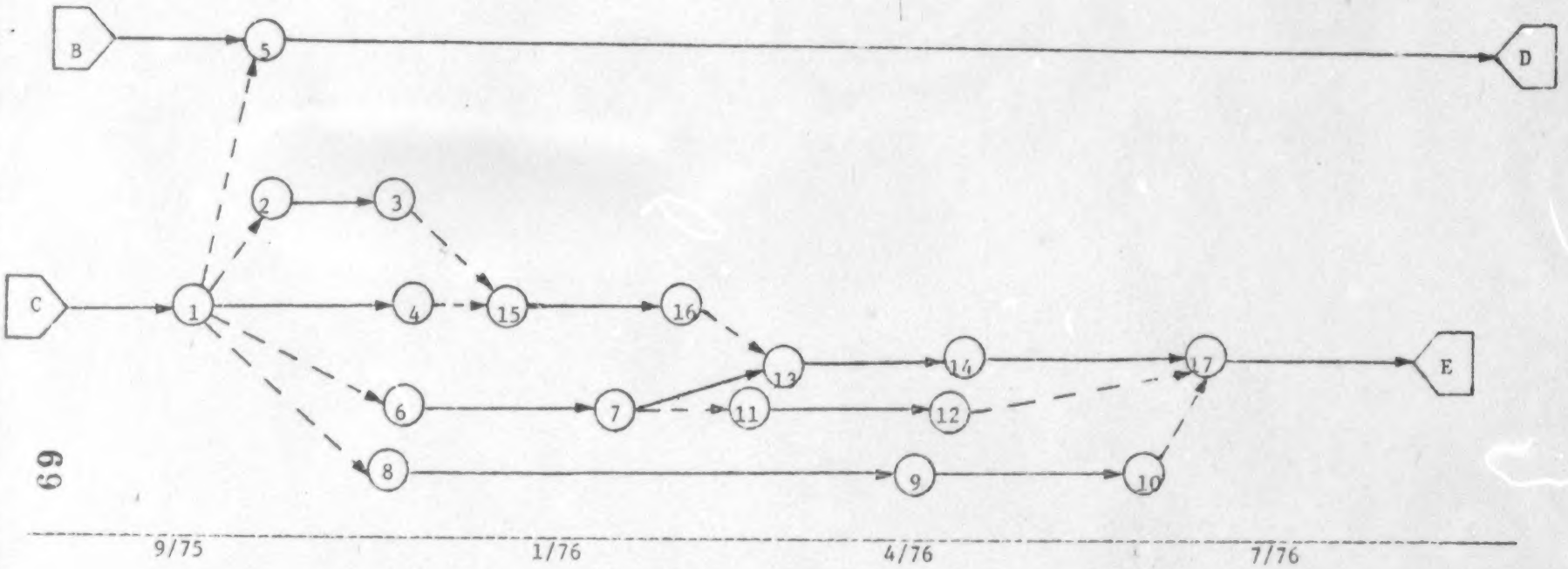
Plans for 1975-76

During 1975-76 particular emphasis will be placed on evaluation studies of the 1973, 1974 and 1975 graduates of the teacher education programs. However, due emphasis will be given to continuing the examination of the 1972 graduates that participated in the first year of the study. The potential population consists of 77, 1972, 1973 and 1974 graduates.

Figure 4 shows an abbreviated chart for the major activities of the project during 1975-76. Initially, three graduate students will engage in intensive studies of the use of the Classroom Observation Record, the Student Evaluation of Teaching, and Interaction Analysis. This will occur from approximately September 1 through October 15. Concurrent with these activities, a schedule of visitations will be developed for the 1972-74 graduates that have previously participated in the study. These 77 individuals will be visited starting the later part of October, 1975. Visitation will continue until sometime in January, 1976.

As soon as possible after the beginning of the fall quarter a survey questionnaire will be sent to all 1975 graduates of the teacher education program. At this same time the 1975 graduates will be asked to participate in the study. It is anticipated that a sample of 30 B.S. level graduates and 15 M.A. level graduates will be selected. During the early part of the Winter of 1976, a schedule of visitation for these individuals will be prepared. During the winter of 1976 and early Spring, these individuals will be visited for purposes of observation and gathering baseline data. Also, during the winter the Principals' Evaluation Instrument will be sent to the principals of all individuals who are teaching in the schools.

Beginning in the late spring and continuing through the summer of 1976, data analysis will be made and a report of the third year activities of the study will be prepared. It is anticipated that this report will contain comparison of the three years of the study.



Summary of Activities

1-4	Finalize Plans for Visiting Subjects in 1974-75 Study
2-3	Training of Observers
5--	Continuing Contact With Other Projects and Survey of the Literature
6-7	Survey All 1975 Graduates
8-9	Conduct Other Related Studies
9-10	Prepare Reports of Related Studies
11-12	Survey Principals of All 1975 Graduates
7-13	Select Sample of 1975 Graduates for Intensive Study as Part of Followup
13-14	Make School Visits on 1975 Graduates
15-16	Make School Visits on 1974-75 Subjects
14-17	Complete Reports and Submit
17--	Begin Making Plans for 1976-77 Phase of Study

Figure 4. PERT Chart of Major Activities for 1975-76.

During 1975-76 at least one or more special studies will be carried out that will lend extra data to the total project. Plans for these special studies will be made during the summer of 1975.

Long Range Plans

Tentative long range plans have been made for the total project. The assumption has been made that the level of funding for personnel will remain approximately the same. It is anticipated that in 1976-77 a group of 1976 graduates of the teacher education program will be added to the study and those individuals who graduated prior to 1973 will be dropped. The basic plan outlined for 1975-76 will be continued during 1976-77. Also a group of Ed.S. graduates will be added to the study.

During 1976-77 an intensive evaluation will be made of all data that has been collected and major modifications may be made in the research design. It is further anticipated that additional instrumentation will become available which will make the project more meaningful.

APPENDIX

REPORTS AND STUDIES RELATED TO THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

1. Ayers, Jerry B. Report I-Restudy. A Survey of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 Through 1969, Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 49 pp.

2. Faculty of the College of Education. Report II-Restudy. Objectives of the Teacher Preparation Program, Volume I, Volume II, and Volume III. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 910 pp.

3. Ayers, Jerry B. Report III-Restudy. A Report of Four Surveys of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 Through 1970. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 39 pp.

4. Ayers, Jerry B. "Predicting Quality Point Averages in Master's Degree Programs in Education," Educational and Psychological Measurement, 31:491-95, 1971.

5. Ayers, Jerry B. A Survey of Student Teachers At Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 7 pp.

6. Ayers, Jerry B. Report V-Restudy. A Report of Two Surveys of the 1971 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1972. (mimeo.), 28 pp.

7. Ayers, Jerry B. and Michael E. Rohr. "Prediction of Quality Point Averages from Personality Variables," Educational and Psychological Measurement, 32:491-94, 1972.

8. Dotson, James R. and Jerry B. Ayers. "A Systematic Plan for the Restudy of a Teacher Education Program," The Tennessee Tech Journal, 7:85-89, 1972.

9. Ayers, Jerry B. and Michael E. Rohr. "The Relationship of Student Grade Expectations, Selected Characteristics, and Academic Performance for Education, Engineering, and Business Majors," Presented before the American Educational Research Association, April, 1972, Chicago, Ill.

10. Brirm, Jack L. and Jerry B. Ayers. "Attitudes of Students Toward Education and Liberal Arts Courses," Presented before the Mid-South Educational Research Association Meeting, November, 1973, Memphis, TN.

11. Ayers, Jerry B. Report VI-Restudy. A Report of Three Surveys of the 1972 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1973. (mimeo.), 38 pp.

12. Ayers, Jerry B., Florinda A. Bustamante, and Philip J. Campana. "Prediction of Success in College Foreign Language Courses," Educational and Psychological Measurement, 33:939-42, 1973.

13. Rohr, Michael E. and Jerry B. Ayers. "Relationship of Student Grade Expectations, Selected Characteristics, and Academic Performance," The Journal of Experimental Education, 41:58-62, 1973.

14. Ayers, Jerry B. Report 74-1. A Report of Three Surveys of the 1973 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 34 pp.

15. Riddle, Barbara Ann. Report 74-2. An Evaluation of the Graduate Program in Health and Physical Education at Tennessee Technological University, By a Follow-up Study of the Graduates. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo), 119 pp.

16. Ayers, Jerry B. and Robert E. DuBey. "Student Teachers Attitudes Towards Supervising Teachers," The Educational Catalyst, 4:17-22, 1974.

17. Ayers, Jerry B. and Michael E. Rohr. "Relationship of Selected Variables and Success in a Teacher Preparation Program," Accepted for Publication in Educational and Psychological Measurement, 34(4):933-37, Winter, 1974.

18. Ayers, Jerry B. Report 74-3. Study of the Graduates of the Library Science Program of Tennessee Technological University 1969-1973. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 28 pp.

19. Bilbrey, Leroy. Human Relations Skills and Teacher Effectiveness. Unpublished M.A. Thesis, College of Education, Tennessee Technological University, 1974.

20. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model Cookeville, TN: Tennessee Technological University, College of Education, 1974, (mimeo.), 92 pp.

21. Duncan, Barbara Louise. Report 74-5. Study of the Graduates of the Counselor Education Program of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 33 pp.

22. Ayers, Jerry B. Report 74-6. Study of the Use of the Graduate Record Examination. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 10 pp.

23. Ayers, Jerry B. Report 74-7. Study of the Graduates of the Ed.S. Program of Tennessee Technological University for the Period 1971 Through 1974. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 17 pp.

24. Ayers, Jerry B. and Jack Brimm. "Student Attitudes Toward Education Courses," College Student Journal, (in press).

25. Ayers, Jerry B. and Merton J. Turck. "Longitudinal Study of Change in Teacher Dogmatism," College Student Journal, (in press).

26. Ayers, Jerry B. Report 75-1. A Report of Three Surveys of the 1974 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1975. (mimeo.)

27. Perry, Don M. Report 75-2. Investigation of the Relationships Between Authoritarianism of Principals and Their Ratings of Teachers. Unpublished Ed.S. Problem Paper. Cookeville, TN: Tennessee Technological University, College of Education, 1975.

28. Cassetty, Mary J. G. Report 73-3. A Followup Study of the Master's and Educational Specialist's Degree Recipients in Administration and Supervision at Tennessee Technological University. Unpublished Ed.S. Problem Paper. Cookeville, TN: Tennessee Technological University, College of Education, 1975.

Other Reports of Interest

29. Brooks, Mildred Marie. A Follow-up Study of Teacher Education Graduates, Tennessee Polytechnic Institute, 1958-1963. Unpublished M.A. Thesis, School of Education, Tennessee Polytechnic Institute, 1964.

30. Hearn, Edell M. Reports of various follow-up studies of the graduates of the teacher preparation programs of Tennessee Technological University, 1965 through 1969.

31. Turck, M. J. "A Look at Dogmatism at Tennessee Technological University," The Tennessee Tech Journal, 4:1-7, 1969.